WWA UNIVERSITY 2021:

WATERPARK DESIGN, DEVELOPMENT & EXPANSION WORKSHOP

Methodology for Feasibility Studies for Waterparks and Hotels

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Purpose of a Feasibility Study

- Purpose
- Necessity
- Scope of assignment
- Who is the client: developer, lender, government, etc.
- Determine financial feasibility
- Analyze plans and designs and make recommendations

Major Components of a Feasibility Study

1. Area, Demographic, and Neighborhood Analysis
2. Site Review
3. Proposed Development Recommendations and Costs
4. Market Analysis
5. Proposed Development Usage and Pricing Analysis
6. Financial Analysis
7. Feasibility Analysis
8. Comparison of Value Created to Projected Costs

1. Area, Demographic, and Neighborhood Analysis

- Population trends
- Number of families with children within driving distance
- Household growth
- Household economics
- Area economics
- Area transportation

2. Site Review

- Drive-time demographics:
  - Indoor waterpark resort: 180 miles
  - Outdoor waterpark: 60 miles
- Site visibility and access
- Amenities/nearby tourist attractions
- Governmental impacts

Demographics Comparison

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

	Example	Wisconsin Dells	Sandusky
2021 Est. Family Households, 180-mile radius	4,180,578	4,304,522	6,516,980
Number of Existing and Under-Construction Hotels with Indoor Waterparks	2	35	13
Total Rooms	1,801	10,092	3,591
Family Households per Indoor Waterpark Hotel Room	2,321	427	1,815

Sources: ESRI, Hotel & Leisure Advisors

Demographics Comparison

US and Canada Residents per Outdoor Waterpark by Region			
Region	**Number of Waterparks**	**Population**	**Residents per Waterpark**
Northeast	73	56,111,079	768,645
Midwest	299	68,308,744	228,457
South	299	124,753,948	417,237
West	114	77,993,663	684,155
Canada	33	37,058,856	1,122,996
Total	**818**	**364,226,290**	**445,264**

Source: Hotel & Leisure Advisors, LLC, September 2021

3. Proposed Development Recommendations and Costs

- Physical plant information
- Facility size
- Branding
- Hotel affiliation
- Amenities
- Theme
- Development costs

4. Market Analysis: Hotel Market

- Hotel competitors
- Existing indoor waterpark resorts
- Demographic analysis
- Recent hotel openings
- Potential hotel openings
- Market segmentation and market penetration
- Projections

Hotel Statistics

Overall U.S. Lodging Performance						
	Occupancy	% Change	ADR	% Change	RevPAR	% Change
2016	65.4%	-0.2%	$124.13	3.4%	$81.15	3.2%
2017	65.9%	0.8%	$126.72	2.1%	$83.57	3.0%
2018	66.2%	0.5%	$129.83	2.4%	$85.96	2.9%
2019	66.0%	-0.2%	$131.23	1.0%	$86.64	0.9%
2020	44.0%	-33.3%	$103.25	-21.3%	$45.48	-47.5%

Source: STR

- A survey of 10 indoor waterpark resorts in 2019 indicated they achieved 76% occupancy with ADR of $247.29. Much stronger than average hotels.

4. Market Analysis: Waterpark Market

- Existing and potential competitors
- Attendance
- Demographics
- Amenities of competitors
- Waterpark pricing

Top 20 US Waterparks by Annual Attendance

Rank	Park	Location	2020 Attendance	% Change over 2019	2019 Attendance	% Change over 2018	2018 Attendance
1	Typhoon Lagoon at Walt Disney World	Orlando, FL	-	-	2,248,000	-1.0%	2,271,000
2	Blizzard Beach at Walt Disney World	Orlando, FL	316,000	-84.1%	1,983,000	-1.0%	2,003,000
3	Universal's Volcano Bay	Orlando, FL	574,000	-68.3%	1,811,000	5.0%	1,725,000
4	Aquatica Orlando	Orlando, FL	528,000	-65.6%	1,533,000	-1.5%	1,556,000
5	Schlitterbahn New Braunfels	New Braunfels, TX	451,000	-54.7%	996,000	-2.0%	1,016,000
6	Water Country USA	Williamsburg, VA	-	-	736,000	1.0%	729,000
7	Adventure Island	Tampa, FL	125,000	-80.9%	656,000	-1.9%	669,000
8	Aquatica San Antonio	San Antonio, TX	263,000	-59.6%	651,000	0.9%	645,000
9	Schlitterbahn Galveston	Galveston, TX	337,000	-40.6%	567,000	1.4%	559,000
10	Splish Splash	Calverton, NY	-	-	542,000	0.6%	539,000
11	Six Flags Hurricane Harbor Arlington	Arlington, TX	235,000	-56.3%	538,000	0.9%	533,000
12	Six Flags White Water Atlanta	Marietta, GA	238,000	-54.8%	526,000	-0.9%	531,000
13	Six Flags Hurricane Harbor	Jackson, NJ	85,000	-82.4%	482,000	1.5%	475,000
14	Typhoon Texas	Katy, TX	203,000	-57.5%	478,000	6.0%	451,000
15	Six Flags Hurricane Harbor Splashtown	Spring, TX	-	-	475,000	0.0%	475,000
16	Zoombezi Bay	Powell, OH	176,000	-62.2%	466,000	6.4%	438,000
17	Six Flags Hurricane Harbor Phoenix	Glendale, AZ	-	-	441,000	-2.0%	450,000
18	Camelbeach	Tannersville, PA	151,000	-65.6%	439,000	0.5%	437,000
19	Dollywood's Splash Country	Pigeon Forge, TN	188,000	-56.6%	433,000	-0.9%	437,000
20	Cedar Point Shores	Sandusky, OH	-	-	424,000	1.0%	420,000

Source: TEA Theme Index, Global Attractions Attendance Report 2019 (released 2020) and 2020 (released 2021)

2021 US & Canada Open Waterpark Supply by Region

Outdoor Waterparks			
Region	**Municipal/ Non-Profit**	**Private**	**Total**
Northeast	15	58	73
Midwest	257	42	299
South	179	120	299
West	67	47	114
Canada	8	25	33
Total	**526**	**292**	**818**

Note: Outdoor Waterpark is defined as an aquatic facility without attached hotel having 3 or more slides.

Source: Hotel & Leisure Advisors, LLC, September 2021

2021 US & Canada Open Waterpark Supply by Region

Indoor Waterpark Resorts

Region	Franchise	Independent	Total
Northeast	6	11	17
Midwest	32	50	82
South	7	12	19
West	11	4	15
Canada	9	6	15
Total	**65**	**83**	**148**

Note: Indoor Waterpark Resort is defined as a hotel with more than 10,000 square feet of indoor waterpark space.

Source: Hotel & Leisure Advisors, LLC, September 2021

2021 US & Canada Open Waterpark Supply by Region

Standalone Indoor Waterparks			
Region	**Municipal/ Non-Profit**	**Private**	**Total**
Northeast	2	2	4
Midwest	31	0	31
South	21	1	22
West	43	3	46
Canada	22	2	24
Total	**119**	**8**	**127**

Note: Standalone Indoor Waterpark is defined as being larger than 10,000 square feet with at least three water features.

Source: Hotel & Leisure Advisors, LLC, September 2021

2021 US & Canada Open Waterpark Supply by Region; 1,174 Total

Resorts with Outdoor Waterparks

Region	Franchise	Independent	Total
Northeast	0	3	3
Midwest	0	4	4
South	20	28	48
West	16	7	23
Canada	0	3	3
Total	**36**	**45**	**81**

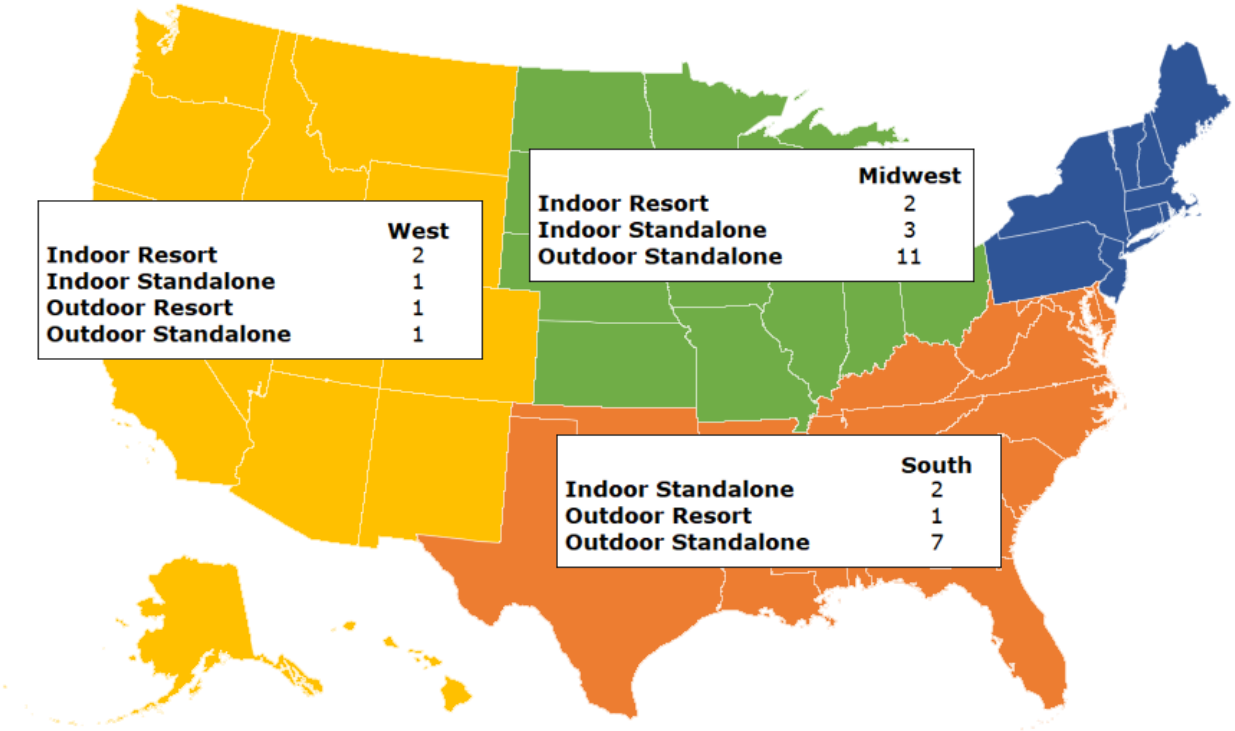
Note: Resort with Outdoor Waterpark is defined as a resort hotel having an outdoor waterpark with at least 3 features (slide, lazy river, wave pool, etc.) excluding resorts that also have indoor waterparks.

Source: Hotel & Leisure Advisors, LLC, September 2021

Waterpark Statistics

- The Midwest represents more than half of the supply of indoor waterpark resorts.
- The South and Midwest are tied for the most outdoor waterparks, but the South offers few indoor waterparks, indicating potential opportunity.
- The Northeast has the fewest 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.

2021 Waterpark Openings by Region



Source: Hotel & Leisure Advisors, LLC, September 2021

5. Proposed Development Usage and Pricing Analysis: Indoor Waterpark Resorts Occupancy and ADR

- Demand interviews
- Hotel and Waterpark demand
- Day passes
- Projections
- Pricing

5. Proposed Development Usage and Pricing Analysis: Outdoor Waterparks

- Usage
- Facilities
- Population
- Projections
- Pricing
- Climate

6. Financial Analysis

- Estimate the potential gross revenues for the subject property.
- Analyze and project departmental, undistributed, and fixed expenses.
- Project the resultant net operating income over an appropriate holding period.

7. Feasibility Analysis

Economic value is calculated through a discounted cash flow analysis.

Discounted Cash Flow Analysis - As Completed

Proposed Resort

Cash flow at discount rate of 11.0%

	Net Income		P.V. Factor		Present Value
2022	$9,275,000	x	0.9009	=	$8,355,856
2023	$9,719,000	x	0.8116	=	$7,888,158
2024	$10,230,000	x	0.7312	=	$7,480,088
2025	$10,487,000	x	0.6587	=	$6,908,112
2026	$10,748,000	x	0.5935	=	$6,378,415
2027	$11,019,000	x	0.5346	=	$5,891,207
2028	$11,293,000	x	0.4817	=	$5,439,368
2029	$11,573,000	x	0.4339	=	$5,021,831
2030	$11,866,000	x	0.3909	=	$4,638,713
2031	$12,161,000	x	0.3522	=	$4,282,915
Present value of cash flow					**$62,284,665**

Discounted Cash Flow

Sum of cash flows and the reversionary sale price equals market value.

Reversionary benefit	
Net income for 2032	$12,464,000
Divided by reversion overall rate	9.0%
Gross reversion	$138,488,889
Less cost of sale at 2.0%	$2,769,778
Net reversion	$135,719,111
Value per room	$542,876
Present value of reversion	**$47,798,164**
Market Value	
PV from cash flow	$62,284,665
PV from reversion	$47,798,164
Market value as of 1/1/2022	$110,082,829
Rounded market value	**$110,100,000**
Valuation factors	
Price per room	$440,400
% of value from cash flow	56.6%
% of value from reversion	43.4%

8. Comparison of Value Created to Projected Costs

- Is the development justified?
- How does valuation through a discounted cash flow analysis compare with proposed development budget including entrepreneurial profit?
- Need to request municipal incentives?

Waterpark Resort Challenges

- Smaller properties generally struggle against larger indoor or outdoor properties.
- Recent indoor waterpark closures in Michigan, Nebraska, Texas, and Wisconsin.
- Weather affects outdoor waterpark performance.
- Too much competition can affect performance.

COVID-19 Impact on Waterparks

- 2020 brought at least temporary closures of most waterparks nationwide in response to COVID-19.
- Many properties were forced to operate with reduced capacities, adherence to government requirements, and reluctant consumers.
- H&LA estimates $3.7 billion in lost revenue and 83.9 million in lost attendance for all waterpark properties in the United States in 2020.

Recovery from COVID-19

- Improved performance in 2021 with higher pricing at many parks.
- Recovery in attendance expected by 2023
- Projects debuting in 2022 and 2023 will benefit from pent-up demand of consumers who have missed out visiting waterparks and attractions in the past two years
- See article: https://hladvisors.com/covid-19-impact-on-u-s-waterpark-industry/

Recent Major Openings

Despite pandemic, 2020 and 2021 still had some major openings occurred including:

- 500-room Great Wolf Resorts in Manteca, California with 95,000-square-foot indoor waterpark
- 975-room Kalahari Resort in Round Rock, Texas opened in late 2020 with a 223,000-square-foot indoor waterpark.
- The 255,000-square-foot DreamWorks Water Park at American Dream Mall in East Rutherford, New Jersey, opened in 2020
- Baha Mar Resort in Nassau added the $200 million Baha Bay outdoor waterpark adjacent to the SLS and Melia Hotels.

Questions

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