



TECHNICAL MEMORANDUM

TO: Brad Sommers, P.E.
Transportation Manager/City Traffic Engineer
Public Works Department
City of Newport Beach

FROM: Sean Mohn

DATE: March 4, 2025

RE: Trip Generation Assessment for Surf Farm
Newport Beach, California

Ref: J2116

Gibson Transportation Consulting, Inc. (GTC) was asked to prepare a detailed trip generation assessment for Surf Farm (Project) in the City of Newport Beach (City). This memorandum summarizes the assessment, including the development of trip generation rates and estimates for the Project based on detailed programmatic attendance information and operational modeling data provided by industry experts (i.e., Wavegarden¹), the development of trip generation estimates for the privately owned golf facility (which is open to the public) currently located at the Project site based on *Trip Generation Manual, 11th Edition* (Institute of Transportation Engineers [ITE], 2021) rates, and the resulting net new trip generation estimates for the Project.

PROJECT DESCRIPTION

Based on discussions with the Project team and a detailed review of the associated Project materials, it is our understanding that the Project would redevelop 15 acres at 3100 Irvine Avenue to accommodate a private surfing facility consisting of a five-acre surf lagoon and 59,772 square feet (sf) of associated ancillary amenities for members and guests, including restaurant and lounge areas, as illustrated in Figure 1.

The Project would replace significant portions of the existing privately owned golf facility, including the 38 position driving range, the 233-seat restaurant, and three holes of the golf course. The Project would retain a limited portion of the existing privately owned golf facility (i.e., 15 holes of the golf course). Access to the Project would be provided via the existing driveway located on Irvine Avenue and from a new driveway located on Mesa Drive.

¹ Wavegarden was founded in 2005 and has grown to become the largest specialist surf park company in the world with over 90 full time employees providing wave innovation design, master planning, civil design, water treatment, operations, and maintenance services. Wavegarden currently has nine surf facilities in operation, 10 surf facilities under construction or pre-construction, and over 40 surf facilities in the feasibility and design phase throughout the Americas, Europe, Asia, and Oceania.

PROJECT TRIP GENERATION ANALYSIS

The trip generation rates and estimates developed for the Project, the trip generation estimates for the existing privately owned golf facility currently located at the Project site, and the resulting net new trip generation estimates for the Project are detailed below.

Surf Lagoon and Associated Amenities

For purposes of developing empirical trip generation rates for the five-acre surf lagoon and associated ancillary amenities, GTC conducted a comprehensive review of the detailed programmatic attendance information and operational modeling data prepared by Wavegarden for typical high season weekday activity at the Newport Beach site, which was developed as part of a comprehensive market analysis based on the following key factors:

1. Market Demand Potential – Size, Profile, & Behavior
2. Market Supply – Potential Competition
3. Performance of Comparable Attractions
4. Quality of Concept, Product & Visitor Experience
5. Product Refreshment & Repeat Visit Potential
6. Location, Access & Wider Destination Context
7. Weather, Seasonality & Capacity
8. Price, Opening Hours, Duration of Visit & Value for Money
9. Quality of Management & Marketing
10. Community & Stakeholder Support

It is important to note that (A) the comprehensive market analysis also included an extensive review of comparable case studies for purposes of validating the analysis assumptions and demand envelopes, and (B) that the resulting detailed programmatic attendance information and operational modeling data also reflect the associated physical and operational parameters of the facility, including an identified **maximum capacity of 72 surfers** within the surf lagoon at any given time and the associated demand control afforded by the Project reservation system. The comparable case study sites and relevant details are provided in Attachment A.

Based on subsequent discussions with Wavegarden, it was confirmed that employees would arrive and depart outside the AM and PM peak hours. It was also confirmed that the attendance levels projected for typical high season weekday activity reflect the total demand for the site, inclusive of the surf lagoon demand (approximately 50% of the daily visitors), the independent demand for the ancillary amenities such as the surf academy, restaurant, shops, and fitness/yoga facilities (approximately 50% of the daily visitors), and the non-trip generating demand for the additional ancillary amenities intended to be utilized solely by patrons of the surf lagoon and the surf academy, such as the dorm rooms.

As such, the empirical trip generation rates developed for the surf lagoon and associated amenities are based on the projected attendance levels, corresponding employee estimates and operational parameters, and associated average vehicle ridership (AVR) ratios anticipated during typical high season weekday activity, as summarized below.

- Surf Lagoon and Associated Amenities – Visitors
 - 1,400 Daily Visitors (*2,800 Person Trips*)
 - Surf Lagoon – 700 Daily Visitors (50%)
 - Surf Academy – 140 Daily Visitors (10%)
 - Restaurant – 280 Daily Visitors (20%)
 - Shops – 70 Daily Visitors (5%)
 - Fitness/Yoga Facilities – 210 Daily Visitors (15%)
 - AM Peak Hour
 - 70 Visitors Inbound
 - 4 Visitors Outbound
 - PM Peak Hour
 - 112 Visitors Inbound
 - 110 Visitors Outbound
 - AVR – 2.0 Persons/Vehicle
- Surf Lagoon and Associated Amenities – Employees
 - 70 Daily Employees (*140 Person Trips*)
 - AVR – 1.0 Persons/Vehicle

The tabular summary of the aforementioned detailed programmatic attendance information and operational modeling data prepared by Wavegarden is provided in Attachment B. The resulting trip generation rates for the Project are detailed below.

- Surf Lagoon and Associated Amenities – Visitors
 - Daily Trips – 1.00 Trips/Visitor
 - AM Peak Hour Trips – 0.027 Trips/Visitor
 - PM Peak Hour Trips – 0.079 Trips/Visitor
- Surf Lagoon and Associated Amenities – Employees
 - Daily Trips – 2.00 Trips/Employee
 - AM Peak Hour Trips – N/A
 - PM Peak Hour Trips – N/A

Based on trip generation rates described above for the surf lagoon and associated amenities and the conservative AVR ratios of 2.0 persons/vehicle for visitors and 1.0 persons/vehicle for employees, approximately 1,400 daily trips, 37 morning peak hour trips (including 35 inbound trips and two outbound trips), and 111 afternoon peak hour trips (including 56 inbound trips and 55 outbound trips) would be generated by the visitors and approximately 140 daily trips would be generated by the employees, as summarized in Table 1.

It is important to note that the development of the trip generation rates for the visitors and employees did not consider the utilization of alternative transportation modes (transit, bike, walk, etc.) As such, the resulting trip generation estimates assume that 100% of the visitors and employees would travel to/from the Project site via automobile.

Existing Privately Owned Golf Facility to be Retained

As directed by the City, the trip generation rates for the limited portions of the existing privately owned golf facility to be retained (i.e., 15 holes of the golf course) are based on *Trip Generation Manual, 11th Edition* rates for the following ITE land use category, as summarized in Table 1:

- Golf Course (Land Use 430)

Based on trip generation rates described above, approximately 456 daily trips, 26 morning peak hour trips (including 21 inbound trips and five outbound trips), and 44 afternoon peak hour trips (including 23 inbound trips and 21 outbound trips) would be generated by the limited portions of the existing privately owned golf facility to be retained, as summarized in Table 1.

Existing Privately Owned Golf Facility to be Replaced

As directed by the City, the trip generation rates for the significant portions of the existing privately owned golf facility to be replaced, including three holes of the golf course, the 38 position driving range, and the 233-seat restaurant, are based on *Trip Generation Manual, 11th Edition* rates for the following ITE land use categories, as summarized in Table 1:

- Golf Course (Land Use 430)
- Driving Range (Land Use 432)
- High-Turnover (Sit-Down) Restaurant (Land Use 932)

To identify the daily trip generation estimates associated with the 233-seat restaurant, the refined methodology utilized the trip generation rates for High-Turnover (Sit-Down) Restaurant (ITE Land Use 932), which seemed the most applicable based on the associated land use definition.

Based on trip generation rates described above, the replacement of the portions of the existing privately owned golf facility described above would result in the reduction of approximately 1,810 daily trips, 136 morning peak hour trips (including 76 inbound trips and 60 outbound trips), and 165 afternoon peak hour trips (including 87 inbound trips and 78 outbound trips), as summarized in Table 1.

For conservative purposes, the resulting trip generation estimates reflect an internal capture adjustment of 25% to account for Golf Course patrons that might also utilize the Driving Range and/or the Restaurant. It is also important to note that the use of *Trip Generation Manual, 11th Edition* rates for the three distinct existing privately owned golf facility land uses was validated prior to the completion of this assessment based on a comparative analysis of traffic volume data collected at the Project site on April 3, 2024. The traffic volume data is provided in Attachment C.

FINAL ASSESSMENT

As previously discussed, the Project trip generation rates and associated trip generation estimates were developed based on the attendance and associated vehicular demand projections for the High Season Weekday Scenario and an associated conservative AVR ratio of 2.0.

Based on the analysis results detailed above, the Project is anticipated to generate 186 **net new** daily trips, a **net reduction** of 73 AM peak hour trips (including 20 inbound trips and 53 outbound trips), and a **net reduction** of 10 PM peak hour trips (including eight inbound trips and two outbound trips), as summarized in Table 1. The net new trip generation estimates reflect both the reduction of trips associated with the significant portions of existing privately owned golf facility to be replaced and the addition of trips associated with the limited portions of the privately owned golf facility to be retained.

As detailed above, the project is forecast to generate less than 300 net daily trips. Therefore, the Project does not require preparation of a transportation/traffic impact analysis per the City's Traffic Phasing Ordinance. Additionally, the Project is considered to have a less than significant impact on transportation/traffic and a vehicle miles traveled (VMT) study is not required per the City's VMT Analysis Methodology detailed in City Council Policy K-3.

FIGURE 1

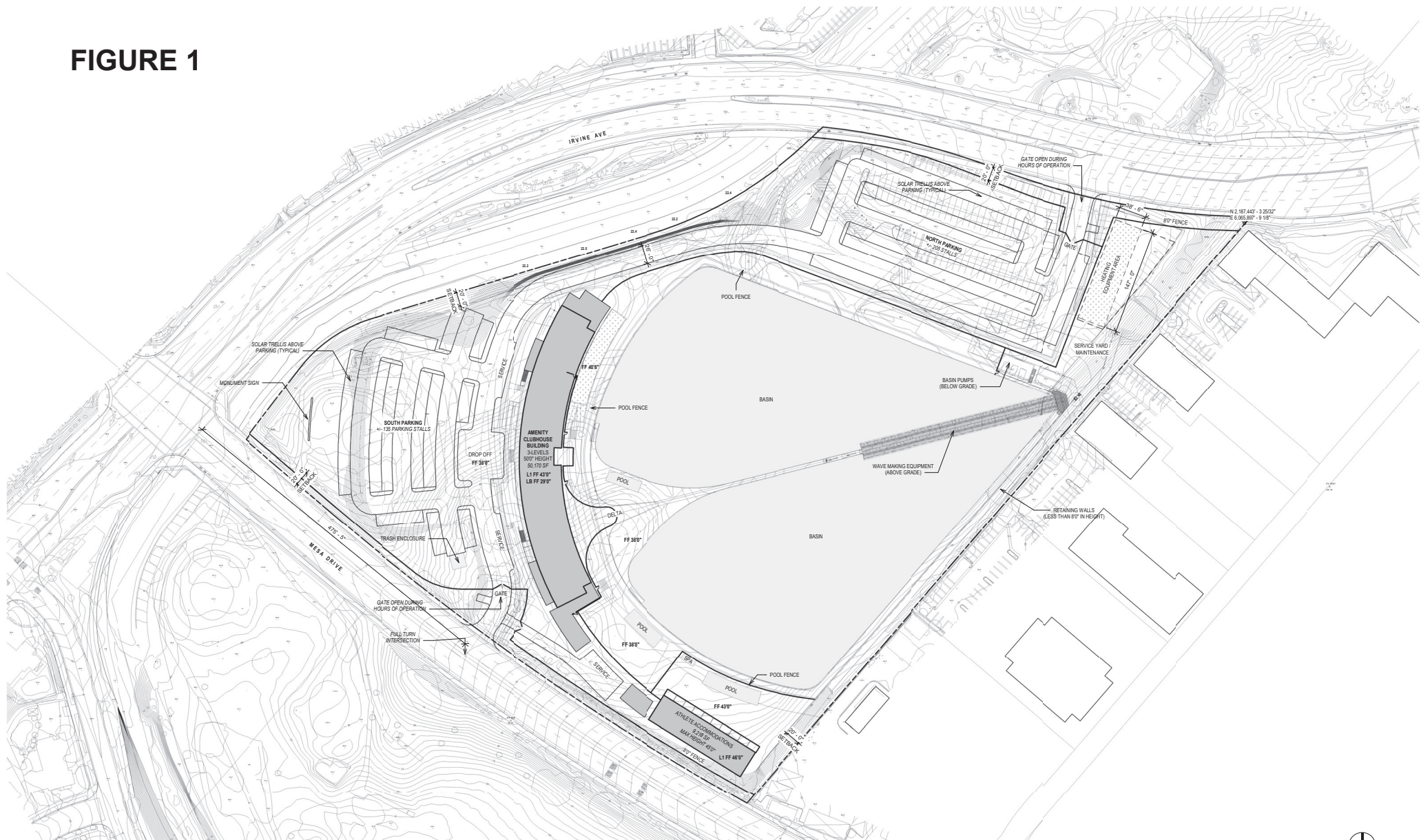


TABLE 1
PROJECT TRIP GENERATION ANALYSIS SUMMARY

LAND USE	SIZE/UNIT	TRIP GENERATION RATES						
		Daily	AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Surf Lagoon & Associated Amenities - Visitors [a]	Per Visitor	1.00	95%	5%	0.027	51%	49%	0.079
Surf Lagoon & Associated Amenities - Employees [a]	Per Employee	2.00	-	-	-	-	-	-
Golf Course - ITE Land Use 430	Per Hole	30.38	79%	21%	1.76	53%	47%	2.91
Driving Range - ITE Land Use 432	Per Position	13.65	61%	39%	0.40	45%	55%	1.25
High-Turnover (Sit-Down) Restaurant - ITE Land Use 932	Per Seat	4.37	52%	58%	0.45	57%	43%	0.39

LAND USE	SIZE/UNIT	TRIP GENERATION ESTIMATES - WEEKDAY						
		Daily	AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
<u>Surf Farm Newport Beach</u>								
Surf Lagoon & Associated Amenities - Visitors (AVR 2.0) [a]	1,400 Visitors	1,400	35	2	37	56	55	111
Surf Lagoon & Associated Amenities - Employees (AVR 1.0) [a]	70 Employees	140	-	-	-	-	-	-
Golf Course - Holes to Remain [b]	15 Holes	456	21	5	26	23	21	44
		1,996	56	7	63	79	76	155
<u>Existing Public Golf Facility [b]</u>								
Golf Course	18 Holes	547	25	7	32	28	25	52
Driving Range	38 Positions	519	9	6	15	21	26	48
Less Internal Capture [c]	25%	(137)	(6)	(2)	(8)	(7)	(6)	(13)
Restaurant	233 Seats	1,018	55	50	105	52	39	91
Less Internal Capture [c]	25%	(137)	(6)	(2)	(8)	(7)	(6)	(13)
		1,810	76	60	136	87	78	165
Net New Total		186	(20)	(53)	(73)	(8)	(2)	(10)

Notes:

[a] Based on the detailed employee and visitor operational modeling data prepared by Wave Garden for the High Season Weekday Scenario, which estimated the associated demand projections for the entire site.

[b] Trip generation rates from *Trip Generation Manual, 11th Edition* (Institute of Transportation Engineers, 2021) were utilized to calculate the trip generation estimates for the public golf facility land uses.

[c] An internal capture adjustment was applied to account for Golf Course patrons that might also utilize the Driving Range and/or the Restaurant.

Attachment A

Wavegarden Case Study Sites

The Wave Bristol, Bristol, UK (Wavegarden Cove)

In **October 2019** waves started breaking in the world's first public Wavegarden Cove in Bristol, England. The Wave facility is located in a beautiful rural site on the edge of Bristol, close to the M5. The Wave focuses on commercially operating the surf lagoon rather than developing neighbouring property / hotels.

The development includes a 150m Wavegarden surfing lagoon, clubhouse building with surf school, shop and restaurant, and 25 glamping 'safari tents' for overnight visitors. It is open year-round (with reduced operational hours in winter) and a one-hour surf costs £50-55 for an adult and £40-45 for a child, depending on the time of year and day of the week. A 1.5 hour surf session with coaching costs £60-65 for an adult and £50-55 for a child. Prices include all required equipment.

Performance of The Wave has exceeded expectations:

- The site has built a strong occupancy profile in the years since it opened through development of the lagoon schedule, continuous refinement of marketing activity and introduction of new products that can run whilst larger wave settings are in the reef.
- The Wave is achieving its target of selling **150,000 surf hours** in a full year together with attracting tens of thousands of spectators who come to the facility but do not surf. This performance is being achieved despite the fact that visitors have to walk over 1km from the car park to the facility.
- The implementation of multiple offers and discounts is enhancing repeat visitation and additional spend per visit. Moreover, with the experience of years in operation staff costs have been adjusted and as such The Wave is achieving an excellent EBITDA margin.
- The safari tents are performing extremely well and there is an aspiration to add additional units when planning allows.



Adult summer peak prices include:

- Bay and reef sessions: £55
- Lessons – add £10

Capacity:

- Beginner: 34 people/session
- Expert/Intermediate: 24-36 people/session

The Wave Bristol, Bristol, UK (Wavegarden Cove)

- The surfing lagoon is the biggest contribution to the business with surf sessions, lessons and other products generating **over 60% of the total revenues** for the business.
- **Retail and F&B** performance reflects the seasonality of visits, with increased visitation and operational hours driving F&B performance during the summer months. The growing onsite accommodation business is helping to increase length of stay and spend per head.
- Significant efforts are being made to improve sustainability with the **recent installation of a solar and energy storage array** such that the business is now generating more energy than it expends in its yearly operation.
- In the summer of 2024 The Wave received permits to install artificial lighting to extend their operational hours in response to demand.
- Given the commercial success of the Bristol operation, and their operational expertise, the investors behind The Wave are **looking for additional sites for development**, including a site in London.



Wavegarden Facilities in Operation



URBNSURF, Melbourne, Australia (Wavegarden Cove)

The opening of URBNSURF on 6th **January 2020** in Melbourne was a huge success. The facility captured the hearts and minds of the Australian surfing community and the lagoon operated at almost 100% capacity for 16 hours per day, every day, for the first three months of operation.

"It was the best and most fun session I have ever had with friends. Also, as a training centre, the potential is mind blowing" (**Owen Wright, Australian pro surfer**)

The facility is located next to Melbourne airport and includes a 160m Wavegarden Cove surfing lagoon (with 46 module machine), surf school, shop, restaurant and a number of small private rooms for hire.

Capacity:

- Beginner: up to 64 per session
- Expert/Intermediate: 20- 40 people/session

Prices from:

- Beginner surf lesson: AUD\$104 = 1hr 30 min (1 hr in water)
- Intermediate: AUD\$104 = 1 hr session
- Advanced: AUD\$104 = 1 hr session
- Expert: AUD\$149 = 1 hr session



Wavegarden Facilities in Operation



URBNSURF, Melbourne, Australia (Wavegarden Cove)

- Operating 16 hours a day to meet demand (6am - 11pm), Urbnsurf Melbourne is the Wavegarden facility that has created the most waves so far (over 9 Million waves).
- Over **180,000 surfing sessions** were sold in 2023 representing an overall annual lagoon **occupancy of 65%**. After the initial honeymoon period, the facility has now stabilized at 150,000+ surfing hours, which is a healthy demand for a stand alone surf park.
- The primary source of revenue is surfing. Almost 90% of earnings is driven by the lagoon itself, although F&B is out-sourced and so is not included in this analysis. At the current time they are unable to add on-site accommodation which would help drive additional growth.
- The company is now forecasting significant growth in beginner surfing and events - they have already organized a number of events charging **25k AUD per day for facility hire**.
- Recent collaborations with local and regional schools are helping Urbnsurf to grow their profile nationally. During these sessions the facility was hosting over **100 surfers simultaneously in the lagoon**.
- The company has also built a very strong membership base, driving up repeat visitation and helping to drive visitation during the low season. They have a number of members who visit the facility **2 to 3 times per week**
- Given the commercial success of the Melbourne operation, the developers behind URBNSURF opened their second Wavegarden surf park in June 2024.



Wavegarden Facilities in Operation



URBNSURF, Sydney, Australia (Wavegarden Cove)

- Urbnsurf Sydney (USS) opened to the public on 13 **May 2024**. Located at Sydney's Olympic Park, the facility covers 3.6 hectares and is designed to receive 1,000 visitors per day, 7 days a week.
- With the opening of USS, Urbnsurf is now the only company in the world to be operating 2 surf parks, a major achievement for the business.
- Occupancy for USS has been exceptional during the initial months post opening with the point enjoying a total occupancy rate of over 90% in November and an average lagoon occupancy of c 70% since opening.
- The projected surfing hours for a full year could even exceed that achieved by Melbourne during its early honeymoon period.



Alaia Bay, Sion, Switzerland (Wavegarden Compact Cove)

Wavegarden's smallest facility to date opened in Sion, Switzerland in **May 2021**.

With a footprint of only c. 9,000m² the Wavegarden Cove is still delivering the full range and size of Reef waves seen at other larger facilities, utilising a total of 46 wave making modules, the same number as in Melbourne and Sydney.

The development is a stand alone surf park in a public park offering a 100m Wavegarden surfing lagoon, surf academy, surf shop and large 1st floor restaurant with a balcony overlooking the surfing lagoon.

It is open from April to December and a one-hour surf costs from €140 to €160 for an adult and €120 to €140 for a child, depending on type of session, time of year and day of the week.

A 1.5 hour surf session with coaching costs €160 to €180 for an adult and €140 to €160 for a child. Prices include all required equipment.

Performance in the first years of operation was outstanding:

- The lagoon is operating at an average occupancy of over 70% mid week and 95%+ at weekends.
- With the highest price point of all Wavegarden facilities, Alaia has achieved the top monthly revenues to date, with most of it coming from the surfing lagoon and a significant portion from the F&B
- The F&B business is booming, with a huge number of visitors coming to just watch the surf and enjoy the atmosphere.

With the experience of several years of operation the company has stabilized the operational business and is delivering a consistent and strong EBITDA margin.



Prices include:

Adult:

- 1 hour surf session: €140 to €160
- 1.5 hour surf lesson: €160 to €180

Child (8-12 years)

- 1 hour surf session: €120 to €140
- 1.5 hour surf lesson: €140 to €160

Capacity:

- Beginner: 40 people/session
- Expert: 30 people/session

Wavegarden Facilities in Operation



Praia da Grama, Sao Paulo, Brazil (Wavegarden Cove)

Located in the countryside just 45 minutes from Sao Paulo, Brazil. Praia da Grama, in Fazenda da Grama, is the home of South America's first Wavegarden Cove surfing lagoon. KSM real estate asset management is behind an exclusive property development that features a 160m Wavegarden Cove (with 52 module machine) framed by an idyllic sandy beach and native forest vegetation. The facility was completed in **June 2021**.

Pre Wavegarden Cove Announcement

- Existing gated golf course condominium
- Phases 1 & 2 included 250+ residential lots
- There were only 7 sales of lots in the 12 months prior to announcement of Wavegarden facility

Post Wavegarden Cove Announcement (July 2019)

- Capital investment represented only 5% of total investment due to the fact that the majority of the project has been financed with pre-sales of lots
- 100% of Phase 3 sold out by September 2020 = 84 residential lots
- Phase 4 includes 120 residential lots, 98% already sold
- Transactions of phases 1 & 2 lots increased by 95%
- Estimated Total Revenue reached R\$670m
- Overall Project IRR of 178% to date
- Multiple of 9x on equity achieved. Payback in 3 years
- Land price rose from \$60 per m2 to \$500 per m2

Please note that titles for the right to use the Wavegarden Cove facility in perpetuity are included in Phases 3 & 4 only. These titles are also sold, but at an additional US\$200k, to owners of Phase 1 and 2 lots within the resort. These are proving popular with 49 transactions to date.



“When I announced our plans for a Wavegarden Beach Club at our resort, our residential sales and prices increased dramatically.”

Oscar Segall, Developer of Praia da Grama Residential Resort, Sao Paulo

Given the commercial success of Praia da Grama, the developers behind the project are now developing several projects in Brazil, including a new Private Club in Sao Paulo.

SURFLAND BRASIL, Garopaba, Brazil (Wavegarden Cove)

- Surfland Brasil is an innovative Surf Resort development with fractional ownership apartments built around a Wavegarden Cove. The resort in Garopaba had its soft opening and launched its first waves in November 2023,
- In addition to the surfing lagoon, the complex will gradually open infrastructure for various sports activities like a skatepark designed by Pedro Barros, swimming pools, tennis courts, beach tennis, surf museum, restaurants, jogging track, gym, yoga shala, spa, and play areas for children. The development has been carefully designed to minimize its impact on the environment, integrating green roofs and prefabricated buildings, solar panels, rainwater harvesting and native flora into the infrastructure. Notably, Surfland Brasil has been honored with an international landscaping award, further highlighting its commitment to excellence in design and environmental integration.
- The residential offer has 278 apartments of which 60 serve as a hotel widening the accommodation offer. The remaining 218 apartments are sold in 26 'fractions' for around 30-40K euros per fraction. The apartments range in size from 60-100m2 and owners collaboratively share assets and divide costs, embracing a model where everyone benefits.
- Pricing for a fraction increased 40% from first sales to the period before opening and may increase further for the final sales.
- The facility is also open to the public with a €6 beach pass during weekdays and weekends. This pass will grant access to the development and the facilities that are free of use: skatepark, gym, swimming pools, beach tennis, tennis courts etc.
- IRR is expected at +200% should hypothesis for revenues and expenditure start to consolidate. So far, occupancy of the reef is still high with Bays being less popular.



Adult prices include:

- Reef Owner: 38€
- Reef walk in: 56€
- Bay Owner: 21€
- Bay walk in: 33€

Capacity:

- Beginner: up to 48 people/session
- Expert/Intermediate: 28-40 people/session

Lost Shore Resort, Edinburgh, Scotland (Wavegarden Cove)

Lost Shore Surf Resort opened to the public on **November 11 2024** in Ratho, located 15 km from the Scottish capital and just 10 minutes from the airport, following the largest Scottish sports infrastructure investment since the 2014 Commonwealth Games (£60 million). With the first waves already breaking, the surf park is expected to welcome over 160,000 visitors each year, create more than 130 jobs, and contribute £11 million annually to the local economy

Set within a sprawling 60-acre country park of the former Craigpark Quarry, Lost Shore Surf Resort features a 52-module Wavegarden Cove, with 53 luxury accommodation units made up of Hilltop Lodges and Waterfront Pods and Lodges.

Over 250 meters of beachfront offer a surf school, surf shop, Surfskate Academy, top Scottish restaurants and bars, a sauna, and various wellness services.

Lost Shore Surf Resort is committed to preserving the ecology of the former quarry with a sustainable energy strategy that uses wind and solar energy to power the wave

Due to the difficult geotechnical conditions of the former quarry site, a special construction method was required for the surf lagoon. Before the foundations were constructed, the ground was stabilized with a temporary backfill. The foundations were strengthened with a T-shaped reinforcement to increase stability. This design prevents subsidence and ensures the smooth operation of the surf lagoon. It also avoided the use of more than 1,200 piles, which would have been necessary in these conditions



Prices include:

Adult:

- 1 hour surf session: €66
- 1.5 hour surf lesson: €72

Child (8-12 years)

- 1 hour surf session: €54
- 1.5 hour surf lesson: €60

Capacity:

- Beginner: 52 people/session
- Expert/Intermediate: 24-40 people/session

Attachment B

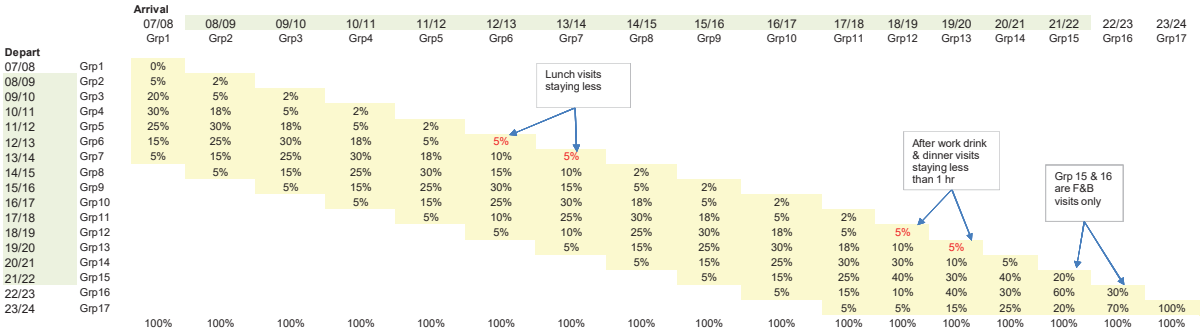
Wavegarden Data

SITE VISITS	Low Season		Mid Season		High Season		TOTAL
	Week days	Wends/Hols	Week days	Wends/Hols	Week days	Wends/Hols	
Total Days Available	72	46	75	48	39	83	
Total Visits	27,664	22,290	51,908	51,538	54,407	147,618	355,425
Average visits per day	380	480	690	1,070	1,400	1,780	

AVERAGE HIGH SEASON WEEK DAY PROJECTIONS

High Season Week day		
Average Visits Per Day	1,400	
Arrive by car	100%	
Total cars	2.0 people per car	700

Forecast Visitor Dwell Time at Surf Park



Visitors in Park (excluding staff) - Average High Season Week Day						
Hour	Visitor Arrival	Visitor Arrivals	Visitor Cumulative Arrivals	Visitor Departures	Visitor Cumulative Departures	Visitors In Park
07/08	3%	42	42	0	0	42
08/09	5%	70	112	4	4	109
09/10	6%	84	196	14	17	179
10/11	8%	112	308	32	49	259
11/12	9%	126	434	55	103	331
12/13	10%	140	574	82	186	388
13/14	7%	98	672	109	295	377
14/15	6%	84	756	114	409	347
15/16	6%	84	840	115	524	316
16/17	8%	112	952	110	635	317
17/18	9%	126	1,078	93	728	350
18/19	6%	84	1,162	94	822	340
19/20	6%	84	1,246	107	929	317
20/21	5%	70	1,316	120	1,049	267
21/22	4%	56	1,372	151	1,199	173
22/23	2%	28	1,400	130	1,329	71
23/24		0	1,400	71	1,400	0
	100%	1,400		1,400	Peak In Park	388

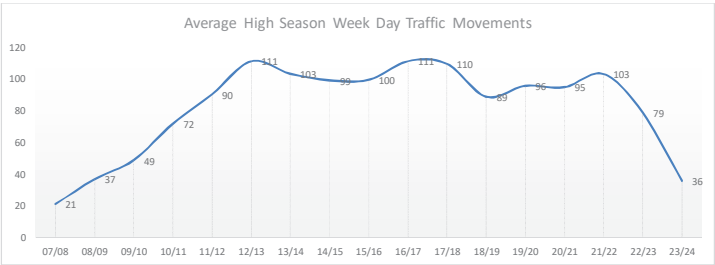
Surf Session (14 Hours)

Car Parking Requirements (excluding staff) - Average High Season Week Day						
Car Arrivals	Car Cumulative Arrivals	Car Departures	Car Cumulative Departures	Cum. Car	Cars	In Park
21	21	0	0	0	21	21
35	56	2	2	2	54	54
42	98	7	9	9	89	89
56	154	16	24	130	130	130
63	217	27	52	165	165	165
70	287	41	93	194	194	194
49	336	54	147	189	189	189
42	378	57	205	173	173	173
42	420	58	262	158	158	158
56	476	55	317	159	159	159
63	539	47	364	175	175	175
42	581	47	411	170	170	170
42	623	54	464	159	159	159
35	658	60	524	134	134	134
28	686	75	600	86	86	86
14	700	65	664	36	36	36
0	700	36	700	0	0	0
700		700	Peak In Park	194		

Traffic Movements - Average High Season Week Day

Hour	Car Arrivals	Car Departures	Traffic Movements
07/08	21	0	21
08/09	35	2	37
09/10	42	7	49
10/11	56	16	72
11/12	63	27	90
12/13	70	41	111
13/14	49	54	103
14/15	42	57	99
15/16	42	58	100
16/17	56	55	111
17/18	63	47	110
18/19	42	47	89
19/20	42	54	96
20/21	35	60	95
21/22	28	75	103
22/23	14	65	79
23/24	0	36	36
700	700	1,400	

Surf Session (14 Hours)



Attachment C

Traffic Volume Data

Prepared by City Count, LLC (www.citycount.com)

ADT Volume Report

Newport Beach Golf Course Driveway (Off Irvine Avenue)

Day: Wednesday, April 3, 2024

City: Newport Beach, CA

Daily Totals	Inbound	Outbound			Total
	919	920			1839

AM	In				Out				Total		PM	In				Out				Total															
00:00	0				0				0		12:00	12				7				19															
00:15	0				0				0		12:15	18				11				29															
00:30	1				0				1		12:30	15				21				36															
00:45	0				1				1				2		12:45	23				68				22				61				45		129	
01:00	0				1				1		13:00	16				18				34															
01:15	0				0				0		13:15	20				14				34															
01:30	0				0				0		13:30	16				19				35															
01:45	0				0				0				1		13:45	20				72				21				72				41		144	
02:00	0				0				0		14:00	19				9				28															
02:15	1				0				1		14:15	13				22				35															
02:30	0				0				0		14:30	23				16				39															
02:45	0				1				0				1		14:45	18				73				22				69				40		142	
03:00	0				0				0		15:00	10				18				28															
03:15	0				0				0		15:15	17				17				34															
03:30	0				1				1		15:30	20				18				38															
03:45	0				0				0				1		15:45	24				71				14				67				38		138	
04:00	2				0				2		16:00	31				18				49															
04:15	0				0				0		16:15	20				22				42															
04:30	0				0				0		16:30	27				18				45															
04:45	0				2				0				2		16:45	27				105				17				75				44		180	
05:00	0				0				0		17:00	28				15				43															
05:15	0				0				0		17:15	26				17				43															
05:30	1				0				1		17:30	31				19				50															
05:45	1				2				0				2		17:45	30				115				21				72				51		187	
06:00	0				1				1		18:00	21				25				46															
06:15	4				4				8		18:15	22				31				53															
06:30	6				0				6		18:30	15				28				43															
06:45	8				18				0				23		18:45	16				74				22				106				38		180	
07:00	7				0				7		19:00	13				20				33															
07:15	8				2				10		19:15	8				14				22															
07:30	7				2				9		19:30	18				27				45															
07:45	4				26				4				34		19:45	16				55				29				90				45		145	
08:00	10				9				19		20:00	4				18				22															
08:15	4				6				10		20:15	3				19				22															
08:30	19				6				25		20:30	0				14				14															
08:45	10				43				2				66		20:45	1				8				27				78				28		86	
09:00	14				7				21		21:00	2				24				26															
09:15	15				8				23		21:15	3				9				12															
09:30	17				6				23		21:30	1				7				8															
09:45	10				56				8				85		21:45	1				7				10				50				11		57	
10:00	12				6				18		22:00	2				5				7															
10:15	12				7				19		22:15	0				6				6															
10:30	13				11				24		22:30	0				3				3															
10:45	16				53				15				92		22:45	0				2				1				15				1		17	
11:00	15				13				28		23:00	0				3				3															
11:15	11				11				22		23:15	1				0				1															
11:30	21				20				41		23:30	0				0				0															
11:45	17				64				10				118		23:45	2				3				1				4				3		7	
Totals	266				161				427		Totals	653				759				1412															
Split %	62.3%				37.7%				23.2%		Split %	46.2%				53.8%				76.8%															

Daily Totals	Inbound	Outbound			Total
	919	920			1839

AM Peak Hour	11:00	10:45	10:45	PM Peak Hour	17:00	18:00	17:30
AM Peak Volume	64	59	122	PM Peak Volume	115	106	200
AM Pk Hr Factor	0.762	0.738	0.744	PM Pk Hr Factor	0.927	0.855	0.943