

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

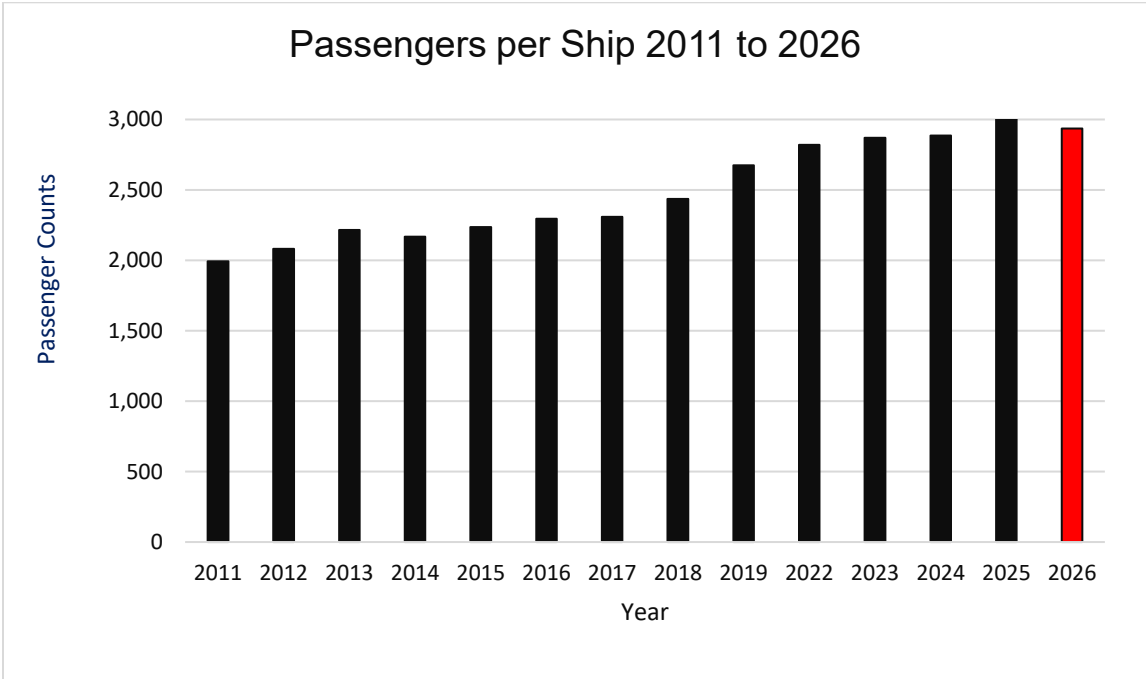
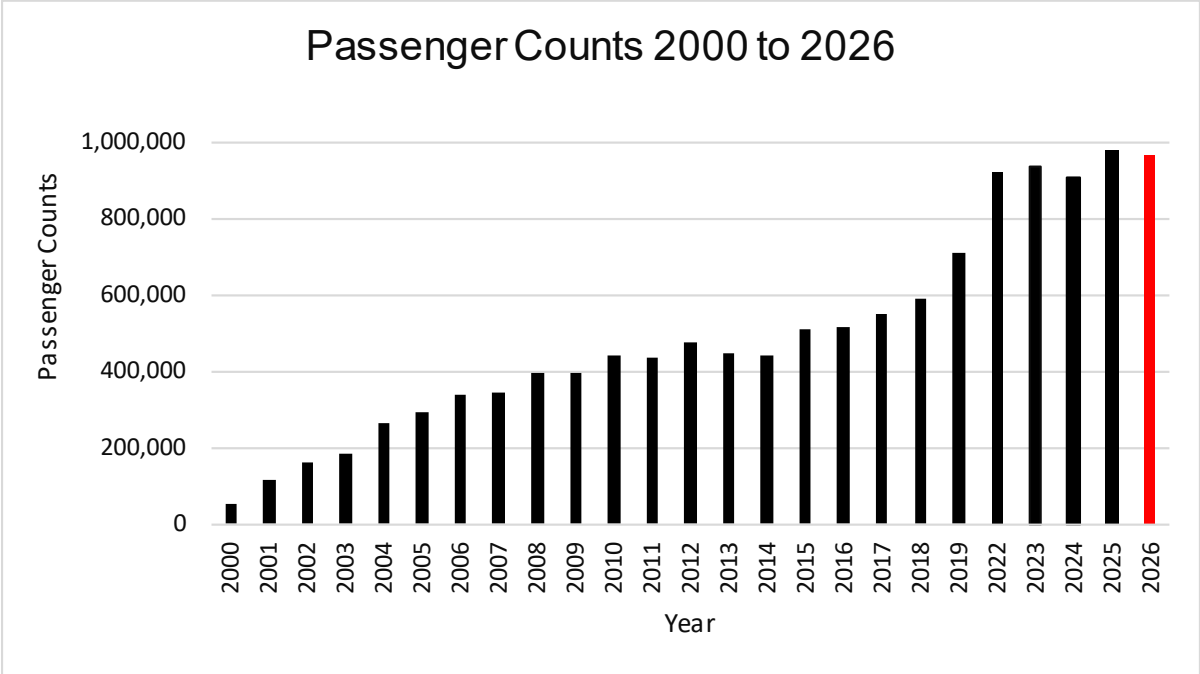
The 2026 charts and tables within this report are derived from the [GVHA Schedule](#). (25th January 2026 version)

	Cruise Ship data 2011 to 2017						
	2011	2012	2013	2014	2015	2016	2017
Ships	208	229	203	204	227	225	239
Guest Capacity	414,388	476,916	449,668	442,044	507,842	516,660	551,938
Avg. Pax/Ship	1,992	2,083	2,215	2,167	2,237	2,296	2,309
Days in Port	104	108	96	102	112	113	116
Hours in Port	1,502	1,488	1,377	1,475	1,624	1,609	1,654
Pax hr in port	6.8	6.3	6.5	7.0	6.8	6.9	6.8

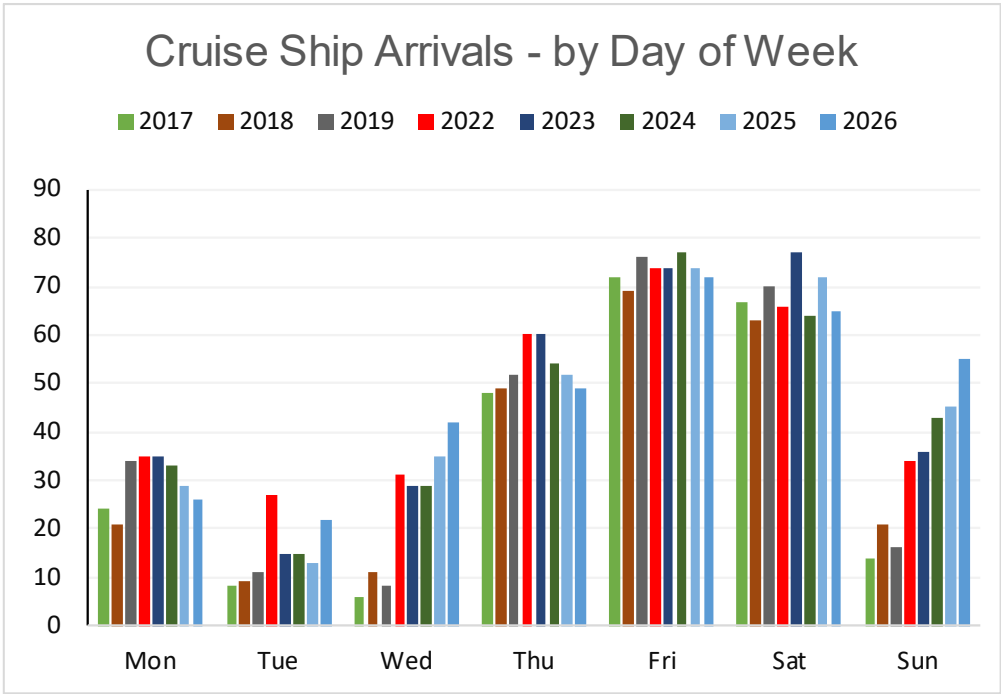
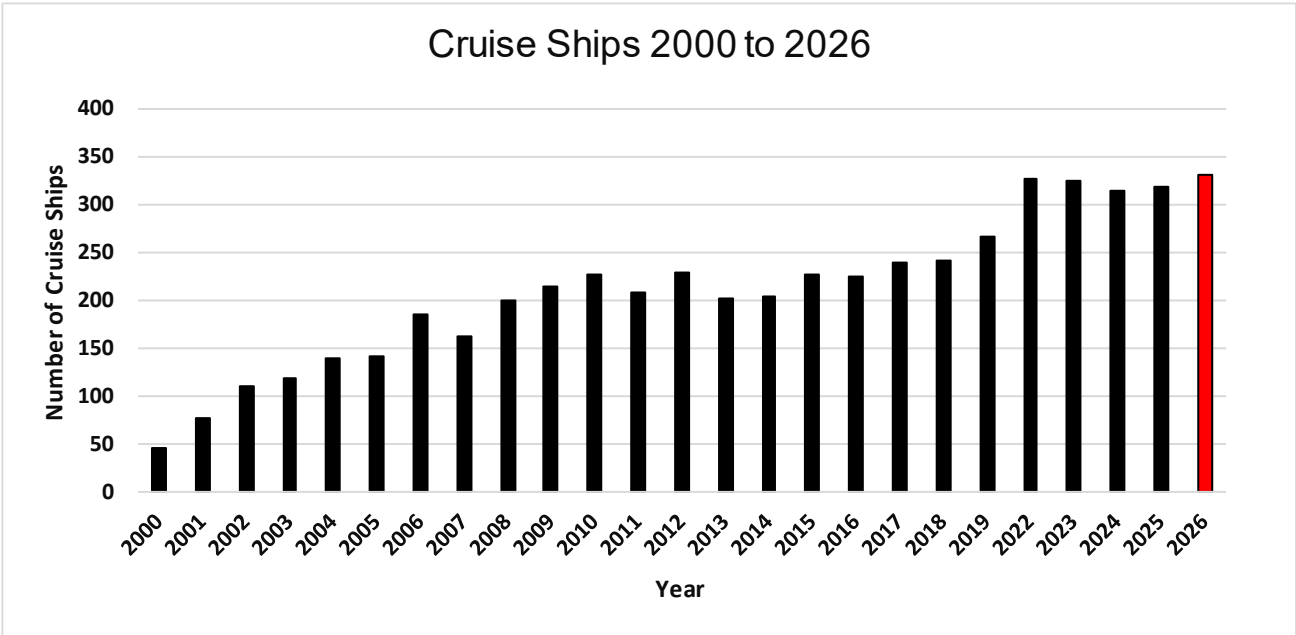
	Cruise Ship data 2018 to 2026						
	2018	2019	2022	2023	2024	2025	2026
Ships	243	267	327	326	315	320	331
Guest Capacity	592,166	713,894	922,497	935,479	909,194	980,734	971,749
Avg. Pax/Ship	2,437	2,674	2,821	2,870	2,886	3,065	2,936
Days in Port	119	125	163	161	160	159	155
Hours in Port	1,716	1,877	2,089	2,175	1,946	2,031	2,108
Pax hr in port	6.7	6.7	6.0	6.2	5.7	6.0	6.0

Passenger counts are based on the listed ship capacity. The actual passenger counts are usually higher. However, due to COVID the 2022 actual passenger counts were significantly lower at [715,000](#) (vs 922,497 capacity).

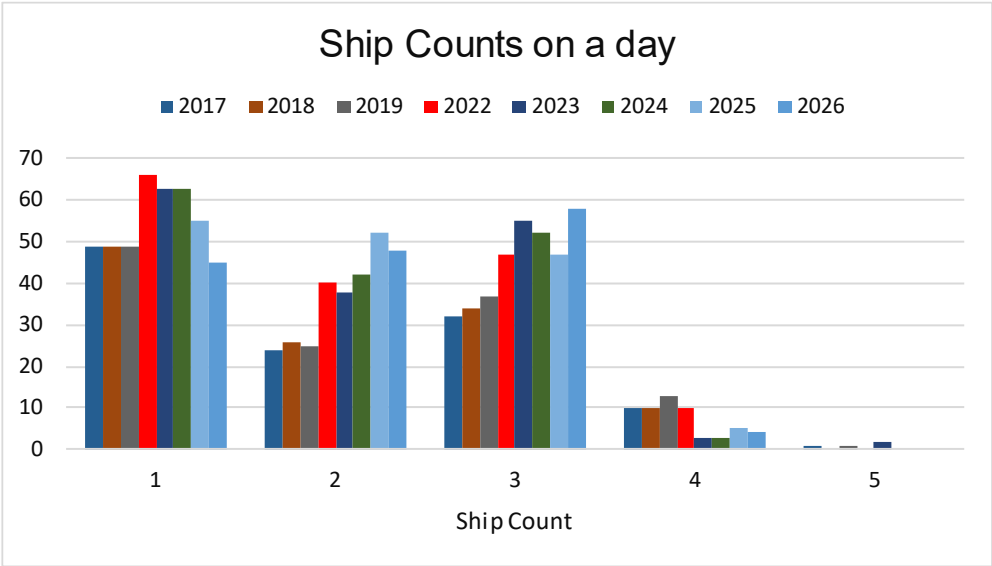
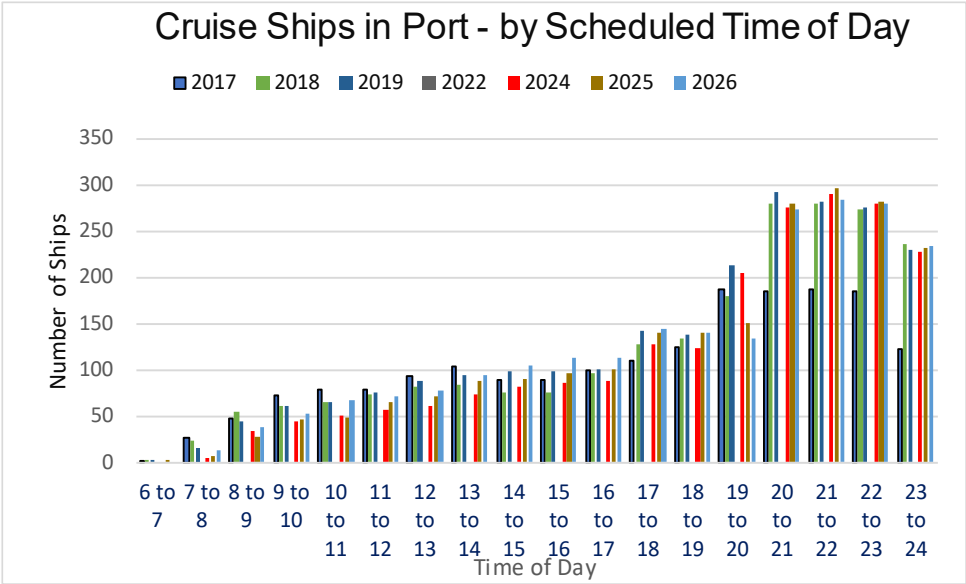
Breakwater District – Analysis of the 2026 Cruise Ship Schedule



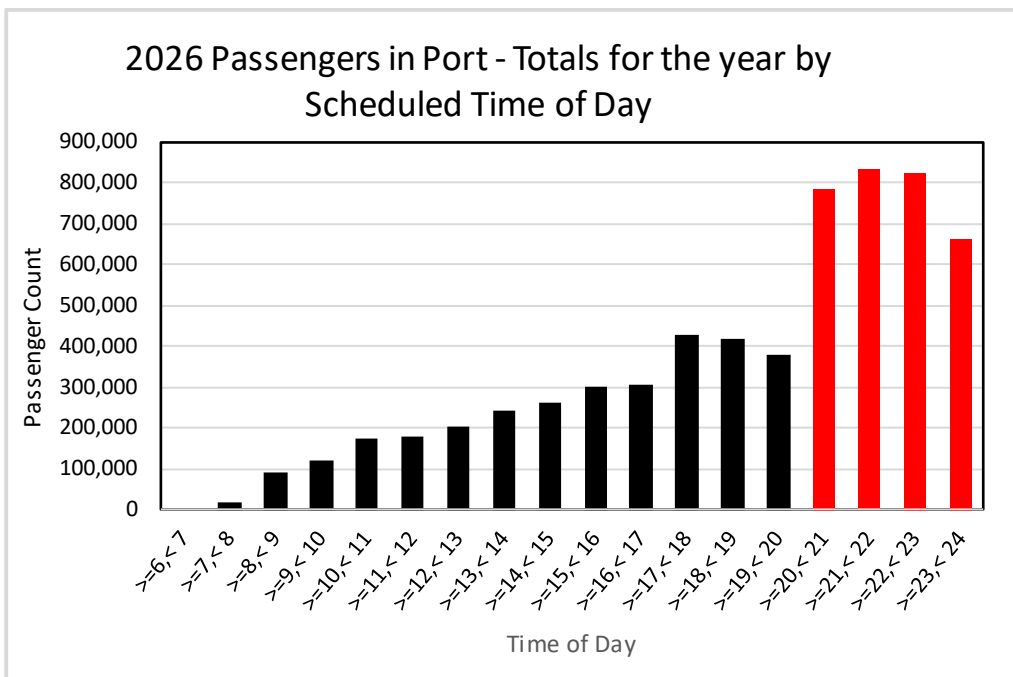
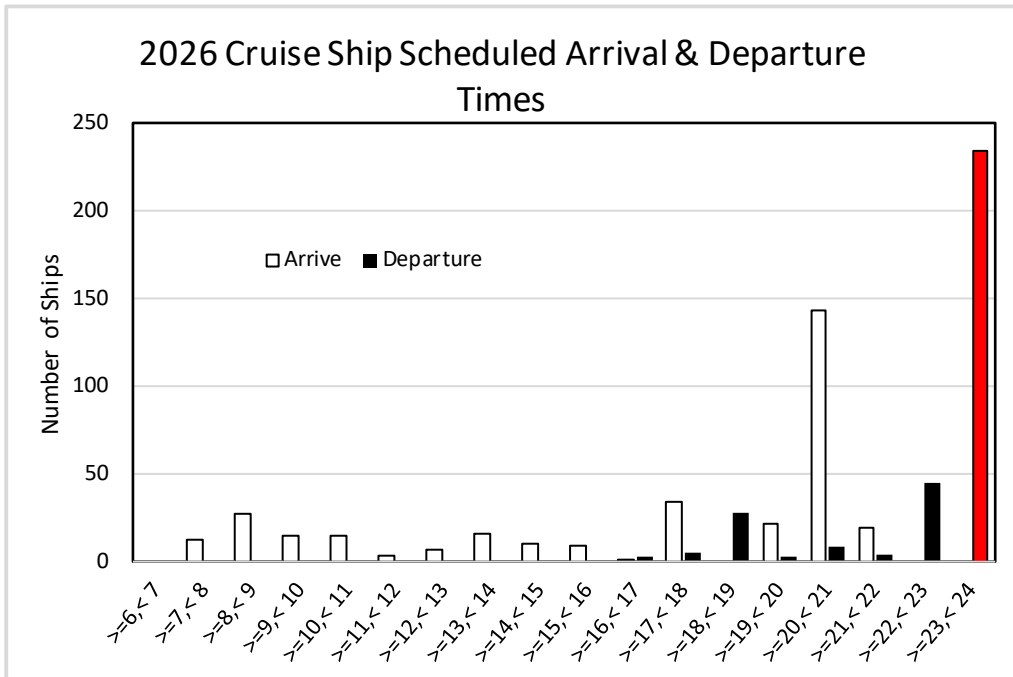
Breakwater District – Analysis of the 2026 Cruise Ship Schedule



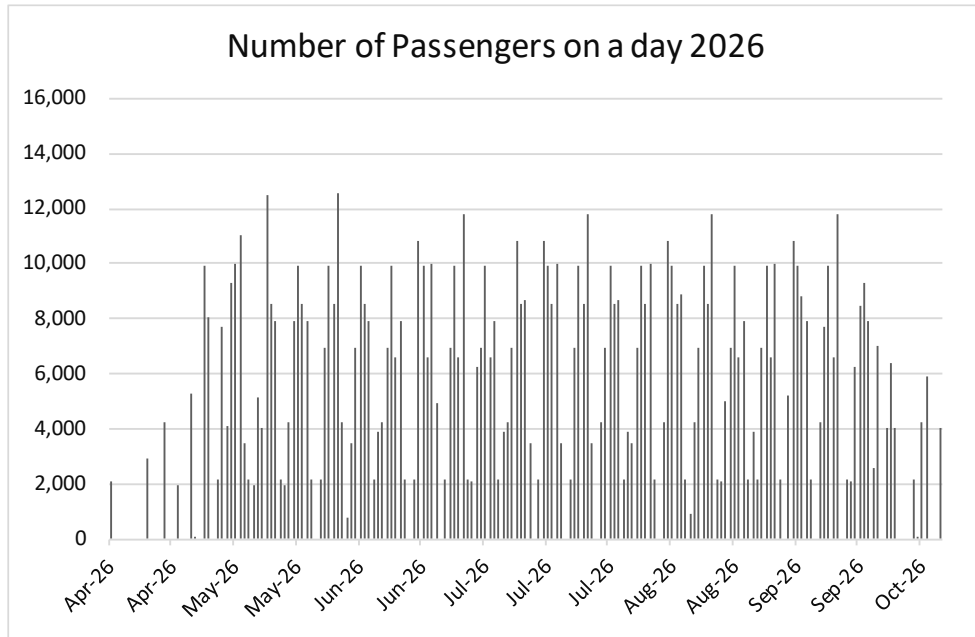
Breakwater District – Analysis of the 2026 Cruise Ship Schedule



Breakwater District – Analysis of the 2026 Cruise Ship Schedule



Breakwater District – Analysis of the 2026 Cruise Ship Schedule



2026 Number of days without cruise ships	
April	24
May	2
June	2
July	3
August	1
September	4
October	23

2026		
Time in Port	Count	%
>0h, <1h	0	0%
>=1h, <2h	0	0%
>=2h, <3h	19	6%
>=3h, <4h	143	43%
>=4h, <5h	21	6%
>=5h, <6h	17	5%
>=6h, <7h	17	5%
>=7h, <8h	12	4%
>=8h, <9h	18	5%
>=9h, <10h	22	7%
>=10h, <11h	27	8%
>=11h, <12h	5	2%
>=12h, <13h	7	2%
>=13h, <14h	11	3%
>=14h, <15h	2	1%
>=15h, <16h	5	2%
>=16h, <17h	5	2%
>=17h, <18h	0	0%
>18h	0	0%
	331	100%

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

Percentage of departures occurring after 11pm and at midnight

	Visits		
	Total	Departure Time	
		>= 11pm	"11:59pm"
Azamara	5	5	0
Carnival Cruise Lines	43	41	41
Celebrity Cruise Line	21	19	19
Crystal Cruises	3	0	0
Cunard Line	15	0	0
Disney Cruise Line	1	0	0
Holland America Line	42	36	36
Lindblad Expeditions	3	3	0
MSC Cruises	20	20	20
Norwegian Cruise Line	66	57	57
NYK	1	1	1
Oceania Cruises	8	6	0
Princess Cruise Lines	52	46	44
Regent Seven Seas	4	0	0
Royal Caribbean Intl	43	0	0
Silversea	1	0	0
VIRGIN VOYAGES	3	1	0
	331	235	218
		71%	66%

Hours in Port

Ship Count	Hours	
	Together	Total
1	958	958
2	321	641
3	169	508
	1,448	2,108

i.e., there are 3 ships together in port for **169** hours; the total hours for all ships is **2108**

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

Ships – Hours in Port

		Visits	Total Hours in Port	Average Hours in Port
ANTHEM OF THE SEAS	Royal Caribbean Intl	20	108	5.4
ASUKA II	NYK	1	11	11.0
AZAMARA PURSUIT	Azamara	5	65	13.0
BRILLIANT LADY	VIRGIN VOYAGES	3	37	12.3
CARNIVAL MIRACLE	Carnival Cruise Lines	21	94	4.5
CARNIVAL SPIRIT	Carnival Cruise Lines	22	88	4.0
CELEBRITY EDGE	Celebrity Cruise Line	17	110	6.5
CELEBRITY SUMMIT	Celebrity Cruise Line	4	55	13.7
CORAL PRINCESS	Princess Cruise Lines	2	25	12.5
CRYSTAL SYMPHONY	Crystal Cruises	3	33	11.0
DISCOVERY PRINCESS	Princess Cruise Lines	2	27	13.7
DISNEY WONDER	Disney Cruise Line	1	9	8.5
EMERALD PRINCESS	Princess Cruise Lines	3	29	9.7
EURODAM	Holland America Line	23	92	4.0
GRAND PRINCESS	Princess Cruise Lines	2	21	10.5
ISLAND PRINCESS	Princess Cruise Lines	1	12	12.0
MSC POESIA	MSC Cruises	20	80	4.0
NATIONAL GEOGRAPHIC QU	Lindblad Expeditions	2	32	16.0
NATIONAL GEOGRAPHIC VE	Lindblad Expeditions	1	16	16.0
NIEUW AMSTERDAM	Holland America Line	3	31	10.3
NOORDAM	Holland America Line	15	80	5.3
NORWEGIAN BLISS	Norwegian Cruise Line	25	106	4.2
NORWEGIAN ENCORE	Norwegian Cruise Line	25	107	4.3
NORWEGIAN JADE	Norwegian Cruise Line	1	10	10.0
NORWEGIAN JOY	Norwegian Cruise Line	15	160	10.7
QUEEN ELIZABETH	Cunard Line	15	175	11.7
RIVIERA	Oceania Cruises	8	70	8.7
ROYAL PRINCESS	Princess Cruise Lines	20	66	3.3
RUBY PRINCESS	Princess Cruise Lines	1	9	9.0
SERENADE OF THE SEAS	Royal Caribbean Intl	1	9	9.0
SEVEN SEAS EXPLORER	Regent Seven Seas	4	38	9.5
SILVER NOVA	Silversea	1	10	10.0
STAR PRINCESS	Princess Cruise Lines	21	110	5.2
VOYAGER OF THE SEAS	Royal Caribbean Intl	22	178	8.1
ZAANDAM	Holland America Line	1	7	7.0
		331	2108	6.4

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

		Departure Time														
2026		>=8am <9am	>=11am <Noon	>=noon <1pm	>=1pm <2pm	>=2pm <3pm	>=3pm <4pm	>=4pm <5pm	>=5pm <6pm	>=6pm <7pm	>=7pm <8pm	>=8pm <9pm	>=9pm <10pm	>=10pm <11pm	>=11pm <midnight	Totals
Arrival Time	6am to 7am															0
	7am to 8am							2	3	1		1			5	12
	8am to 9am							1	2	11	1	5		2	5	27
	9am to 10am									3	1			10		14
	10am to 11am									13	1			1		15
	11am to 12pm											2			1	3
	12pm to 1pm												2	1	4	7
	1pm to 2pm												1	5	10	16
	2pm to 3pm												1		9	10
	3pm to 4pm													9		9
	4pm to 5pm														1	1
	5pm to 6pm													17	17	34
	6pm to 7pm															0
	7pm to 8pm														21	21
	8pm to 9pm														143	143
	9pm to 10pm														19	19
10pm to 11pm															0	
11pm to midnight															0	
		0	0	0	0	0	0	3	5	28	3	8	4	45	235	331

e.g. 143 ships arrive at or after 8pm and leave between 11pm and midnight

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

Arrival Time	Ship Count	% of Total Visits	pax hours in Port
Morning Ships (>=6am , <Noon)	71	21%	10.4
Afternoon+ Ships (>=Noon, <7pm)	77	23%	7.3
Evening Ships (>=7pm, <midnight)	183	55%	4.0
	331		6.0

2026	>=8am <9am	>=11am <Noon	>=noon <1pm	>=1pm <2pm	>=2pm <3pm	>=3pm <4pm	>=4pm <5pm	>=5pm <6pm	>=6pm <7pm	>=7pm <8pm	>=8pm <9pm	>=9pm <10pm	>=10pm <11pm	>=11pm <midnight	Totals
Monday									1	1			1	23	26
Tuesday							2	2	1		2	2	1	12	22
Wednesday								2			1	1	10	28	42
Thursday									17		3		6	23	49
Friday								1		1	1	1	1	67	72
Saturday							1		3				2	59	65
Sunday									7	1			24	23	55
	0	0	0	0	0	0	3	5	28	3	8	4	45	235	331

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

Ship “TO” and “FROM” Ports

2026	From	To
Alert Bay, BC	1	2
Astoria	5	2
Endicott Arm	15	
Friday Harbour		1
Hilo, HI	2	
Icy Strait	2	
Juneau	21	
Ketchikan	172	
Klawock, AK	4	
Kona	1	
Los Angeles	4	2
Nanaimo	4	
Prince Rupert	4	
San Diego	1	1
San Francisco	6	3
San Juan Islands	1	
Seattle	3	289
Sitka	15	
Skagway	41	
TBA	2	1
Tracy Arm	20	
Vancouver	7	30
	331	331

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

	2026	Ship Counts by Month								Totals
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
"Coming From" Port	Alert Bay, BC								1	1
	Astoria		1	4						5
	Endicott Arm			1	4	5	4	1		15
	Hilo, HI		1						1	2
	Icy Strait							2		2
	Juneau			3	4	4	5	5		21
	Ketchikan			38	31	36	36	26	5	172
	Klawock, AK				1	1	1	1		4
	Kona			1						1
	Los Angeles		1	3						4
	Nanaimo		1	1			1		1	4
	Prince Rupert				1	1	1	1		4
	San Diego			1						1
	San Francisco		2	3				1		6
	San Juan Islands		1							1
	Seattle		1	2						3
	Sitka			2	2	4	3	3	1	15
	Skagway			5	9	10	10	7		41
TBA					1	1			2	
Tracy Arm			3	4	4	5	4		20	
Vancouver						1	5	1	7	
Totals		0	8	67	56	66	68	56	10	331

	2026	Ship Counts by Month								Totals
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
"Going To" Port	Alert Bay, BC		2							2
	Astoria						1		1	2
	Friday Harbour								1	1
	Los Angeles							2		2
	San Diego							1		1
	San Francisco							3		3
	Seattle		1	52	54	64	62	48	8	289
	TBA					1				1
	Vancouver		5	15	2	1	5	2		30
										0
										0
	Totals		0	8	67	56	66	68	56	10

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

		COMING FROM																							
	2026	Alert Bay, BC	Astoria	Endicott Arm	Hilo, HI	Icy Strait	Juneau	Ketchikan	Klawock, AK	Kona	Los Angeles	Nanaimo	Prince Rupert	San Diego	San Francisco	San Juan Islands	Seattle	Sitka	Skagway	TBA	Tracy Arm	Vancouver	Totals		
GOING TO	Alert Bay, BC															1	1						2		
	Astoria																						2	2	
	Friday Harbour	1																					1	1	
	Los Angeles							1															1	2	
	San Diego																						1	1	
	San Francisco																						3	3	
	Seattle			15	1	2	21	168	2	1		2	2		1			14	40		20		289	289	
	TBA																				1			1	1
	Vancouver		5		1			3	2		4	2	2	1	5		2	1	1	1				30	30
		1	5	15	2	2	21	172	4	1	4	4	4	1	6	1	3	15	41	2	20	7	331		

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

Ship “Arriving From” ports with visit counts.

2026	Passengers (Normal Capacity)	Ship Count for Arriving From Port																			Total Visits	Total Passengers @ 100% capacity			
		Alert Bay, BC	Astoria	Endicott Arm	Hilo, HI	Icy Strait	Juneau	Ketchikan	Klawock, AK	Kona	Los Angeles	Nanaimo	Prince Rupert	San Diego	San Francisco	San Juan Islands	Seattle	Sitka	Skagway	TBA			Tracy Arm	Vancouver	
ANTHEM OF THE SEAS	4,919					20																	20	98,380	
ASUKA II	960						1																1	960	
AZAMARA PURSUIT	777						1			2									2				5	3,885	
BRILLIANT LADY	2,770	1										1					1						3	8,310	
CARNIVAL MIRACLE	2,124					1	20																21	44,604	
CARNIVAL SPIRIT	2,124				1		21																22	46,728	
CELEBRITY EDGE	2,918																	17					17	49,606	
CELEBRITY SUMMIT	2,218													2								2	4	8,872	
CORAL PRINCESS	1,970						1			1													2	3,940	
CRYSTAL SYMPHONY	922											2										1	3	2,766	
DISCOVERY PRINCESS	3,660									1							1						2	7,320	
DISNEY WONDER	2,400																					1	1	2,400	
EMERALD PRINCESS	3,080						1							1								1	3	9,240	
EURODAM	2,104						23																23	48,392	
GRAND PRINCESS	2,606						1			1													2	5,212	
ISLAND PRINCESS	1,974		1																				1	1,974	
MSC POESIA	3,013																				20		20	60,260	
NATIONAL GEOGRAPHIC C	100	1															1						2	200	
NATIONAL GEOGRAPHIC V	100														1								1	100	
NIEUW AMSTERDAM	2,106		2		1																		3	6,318	
NOORDAM	1,918						13				2												15	28,770	
NORWEGIAN BLISS	4,250						24			1													25	106,250	
NORWEGIAN ENCORE	3,998						23							1									1	25	99,950
NORWEGIAN JADE	2,882													1									1	2,882	
NORWEGIAN JOY	3,883					2	8										1	4					15	58,245	
QUEEN ELIZABETH	2,081						15																15	31,215	
RIVIERA	1,328							1									7						8	10,624	
ROYAL PRINCESS	3,560		1				19																20	71,200	
RUBY PRINCESS	3,080													1									1	3,080	
SERENADE OF THE SEAS	2,500															1							1	2,500	
SEVEN SEAS EXPLORER	754							3				1											4	3,016	
SILVER NOVA	728						1																1	728	
STAR PRINCESS	2,590									1								20				1	21	54,390	
VOYAGER OF THE SEAS	4,000			15						1							6						22	88,000	
ZAANDAM	1,432												1										1	1,432	
		1	5	15	2	2	21	172	4	1	4	4	4	1	6	1	3	15	41	2	20	7	331	971,749	

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

Cruise Ship Greenhouse Gas Emissions

What is the Green House Gas (GHG) emission rate when three cruise ships are in port and how does it compare with the City of Victoria GHG estimate for **2026**?

Summary

The report contains 4 sections:

- An estimate of the **2026** cruise ship GHG emissions.
- An estimate of the **2026** City of Victoria GHG emissions.
- An estimate of the **2026** cruise ship hours in port for the 1, 2 & 3 ship combinations.
- A comparison of both the cruise ship and City hourly and annual emission rates.

The conclusion is that when three ships are in port the estimated hourly GHG emission rate (tCO₂e/h) is potentially **50%** and possibly as much as **64%** of the City of Victoria’s average hourly rate.

1) Green House Gas (GHG)– Estimating the **2026** cruise ship emissions (measured in tCO₂e)

The following analysis uses two sources to estimate the total **2026** cruise ship GHG emissions:

- [2019 GHVA Emissions Inventory](#) – includes 2018 GHG data.
- [The 2019 Capital Daily Report](#)

In both cases the **2026** estimate is obtained by prorating the hours the ships were in port to the currently scheduled **2026** cruise ship hours.

1a) GVHA Emissions Inventory

The GHVHA report estimates the total cruise ship GHG for 2018 while docked at the Breakwater District at 8,252 tonnes.

Prorating this amount by the ratio of **2026** cruise ship hours to 2018 cruise ship hours gives a **2026** estimate of **10,135** tonnes.

	Hours in Port	tCO ₂ e
		GVHA from report
2018	1,716	8,252
2026	JBNA estimate	Prorate based on hours
	2,108	10,135
tCO ₂ e/h		4.8

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

1b) Capital Daily

The Capital Daily report estimates the total cruise ship GHG for 2019 while docked at the Breakwater District at 11,406 tonnes.

Prorating this amount by the ratio of 2026 hours to 2019 hours gives a 2026 estimate of 13,016 tonnes

	Hours in Port	tCO ₂ e
Capital Daily		
from report		
2019	1,847	11,406
2026	JBNA estimate	Prorate based on hours
	2,108	13,016
tCO ₂ e/h		6.2

2) Estimate of the total City of Victoria CHG emissions for 2026

The City's [Climate Leadership Plan Progress Report 2024](#) provides a figure of 287,000 tCO₂e for 2023 and notes this to be a 31% reduction from the 2007 level. From these figures the 2030 target of 50% of the 2007 level is calculated at 208,000 tCO₂e

From these figures an estimate for 2026 is 253,143 tCO₂e (=28.9 tCO₂e/h)

	tCO ₂ e	tCO ₂ e/h
From City Reports		
2023	287,000	33
2030	208,000	24
2026	interpolate between years	
	253,143	28.9

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

3) Cruise ship hours in port

Ships in Port at the same time	Total "ship" hours	Total "together in port" hours	Based on prorated 2019 Capital Daily GHG		Based on prorated 2018 GVHA GHG	
			tCO2e	tCO2e/h	tCO2e	tCO2e/h
1	958	958	5,918	6.2	4,608	4.8
2	641	321	3,960	12.4	3,084	9.6
3	508	169	3,138	18.5	2,444	14.4
	2,108	1,448	13,016	9.0	10,135	7.0

The table above is based on the above and an analysis of the GVHA cruise ship schedule.

4a) Comparison of the 2026 tCO2e hourly rates for “3 ships in Port” and “Total City of Victoria”

	Capital Daily	GVHA
	tCO2e/h	
City of Victoria	28.9	28.9
3 Ships in Port	18.5	14.4
%	64%	50%

We therefore have two estimates for the Cruise Ship hourly GHG emission rate when 3 ships are in port:

- 50% of the City of Victoria emission rate based on the GHHA report.
- 64% of the City of Victoria emission rate based on the Capital Daily report.

Breakwater District – Analysis of the 2026 Cruise Ship Schedule

4b) Comparison of the total 2026 tCO2e emissions for the Cruise Ships and the City of Victoria

2026 tCO2e	
City of Victoria	
253,143	
Capital Daily	GVHA
13,016	10,135
5.1%	4.0%

We therefore have two estimates for the Cruise Ship total 2026 GHG emissions:

- 4.0% of the City of Victoria emissions based on the GHHA report.
- 5.1% of the City of Victoria emissions based on the Capital Daily report.