

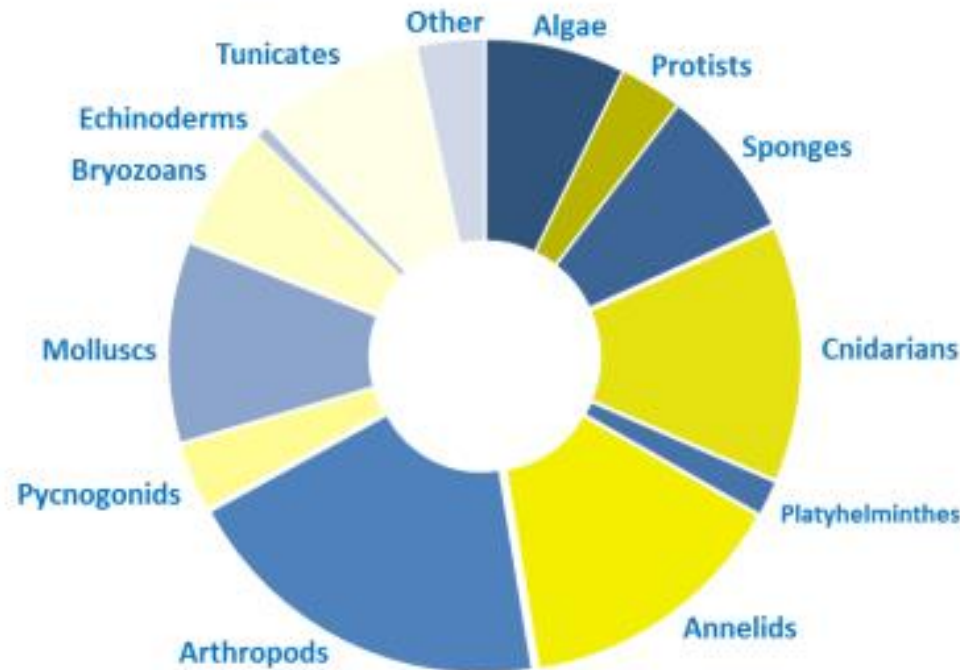
MANAGEMENT OF BALLAST WATER IN HAWAII

Genevieve Devine

Kupu AmeriCorps Service Year Member
Department of Land & Natural Resources
Division of Aquatic Resources

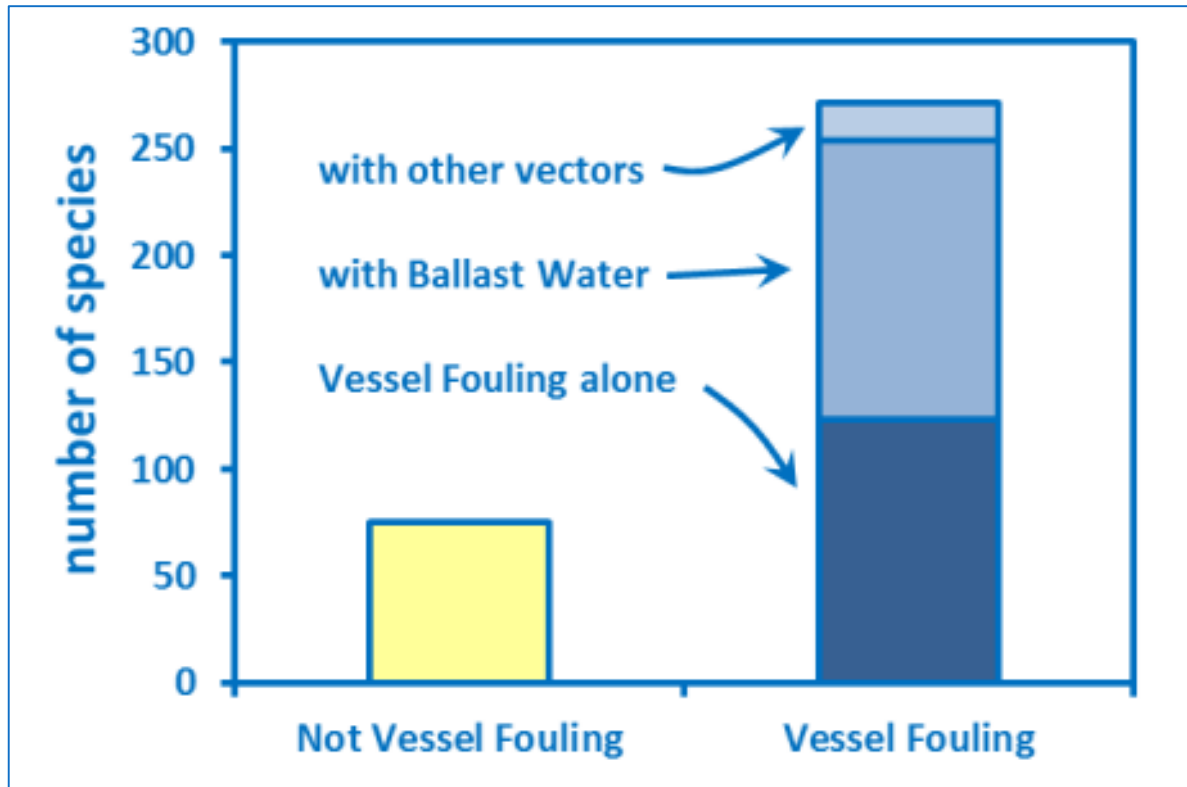


NON-INDIGENOUS MARINE ALGAL AND INVERTEBRATE SPECIES IN HAWAII

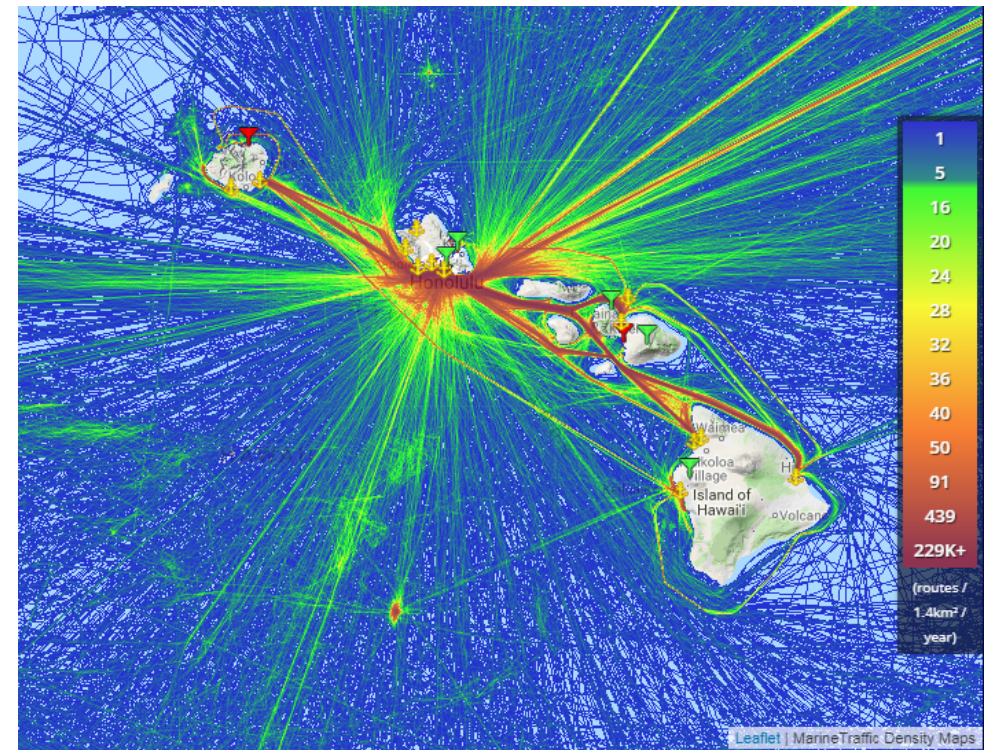


Hawaii has identified 346 non-indigenous marine algae and invertebrates species compared to approximately 450 non-indigenous marine algae and invertebrates species found on the continental coastline

VESSELS AS A VECTOR OF TRANSFER



Number of NIS Algae and Invertebrate Species By Vector (Davidson et al)



2017 Marine Traffic Route Density Map

(Hawaii Administrative Rules | Chapter 13-76)

ACCEPTABLE BALLAST WATER MANAGEMENT



Ships are required to use the following ways to manage ballast water:

- 1) Ballast water management system
- 2) Use of a municipal water source
- 3) Onshore treatment of ballast water
- 4) Empty/Refill
- 5) Flow Through
- 6) No Ballast Water Discharge

(Hawaii Administrative Rules | Chapter 13-76)

HAWAII STATE BALLAST WATER ASSESSMENT

OMB number 1625-0069
Exp. date: 31-Dec-2018

Ballast Water Management Report

Vessel Information

Vessel name

ID number **IMO number**

Country of Registry **Select country**

Owner/operator

Type **Select vessel type** Gross Tonnage

Ballast water volume units **cubic meters**

Total ballast water capacity **cubic meters** Number of tanks on ship **0**

Onboard BW Management System

Voyage Information

Arrival port (port and state) **Select state**

Arrival date

Last port (port and country) **Select country**

Next port (port and country) **Select country**

Total ballast water on board **cubic meters** Number of tanks in ballast

Number of tanks discharged

Alternative BW management conducted, per instructions from COTP ☐

Certificate of accurate information

By checking this box, I attest to the accuracy of the information provided and that ballast water management activities were in accordance with the ballast water management plan required by CFR 151.2050(g). ☒

Responsible Officer's name and title

Report type **New report**

Submitted by Contact information

Ballast Water History

On the following page(s), provide the ballast water history for each tank discharged into the waters of the United States or to a reception facility, en route to or at the arrival port. Vessels entering the Great Lakes or Hudson River (north of George Washington Bridge) from beyond the US EEZ must also provide the history for empty tanks that underwent alternative management.

- Primary assessment
 - Pre-border ballast water report submitted 24 hours before vessel arrival
- Secondary assessment
 - Onboard verification of documentation and system logs
- Tertiary assessment
 - Ballast water and sediment sampling to ensure compliance with effluent standards

Introduction | Hawaii State Rules | 2018 Reporting Form Data | Reporting Form Risk Analysis | Compliance Improvements | Questions?

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1				Fill Vessel Data		Vessel Information						Voyage Information												
2	Vessel	Date & Time Received	Ammended?	IMO #	Country of Registry	Owner/Operator	Vessel Classification	Gross Tonnage	BW Total Capacity (m³)	Total # BW Tanks	BW MGMT SYST	Arrival Port	Arrival Date & Time	Hours Sub. Prior To Arrival (should be >24)	Last Port of Call	Next Port of Call	Total BWOB	# tanks in Ballast	# Tanks Discharged	BW Mgmt (COTP)	Responsible Officer	Submitted by	NBIC Report?	Highlight
48		1/19/18 0:00			Bermuda	Cruise	6	1E+05	1903	7	AMS - 2013	Nawiliwili	1/24/18 0:00	5d, 0h	Honolulu, HI	Lahaina, HI	600	1	0	chec	Filippo Zaccari	Zaccari	1	Retaining B/W
49		1/19/18 0:00			Bermuda	Cruise	6	1E+05	1903	7	AMS - 2013	Lahaina, HI	1/25/18 0:00	6d, 0h	Nawiliwili	Hilo, HI, US	600	1	0	chec	Filippo Zaccari	Zaccari	1	Retaining B/W
50		1/19/18 0:00			Bermuda	Cruise	6	1E+05	1903	7	AMS - 2013	Hilo, HI, US	1/26/18 0:00	7d, 0h	Lahaina, HI	Ensenada, CA	600	1	0	chec	Filippo Zaccari	Zaccari	1	Retaining B/W
51		1/19/18 0:00			Antigua & Barbuda	Pasado	4	28372	10353	23	No	Honolulu, HI	1/24/18 0:00	5d, 0h	Suva, Fiji	Vancouver, BC	4214	11	0	chec	Charkin Oleg	Sergiy	1	Retaining B/W
52		1/20/18 0:00			USA	Navigatio	4	32575	11691	21	None	Honolulu, HI	1/21/18 0:00	1d, 0h	Long Beach, CA	Guam, USA	5144	19	0	chec	Nick Garay	Garay	1	Retaining B/W
53		1/20/18 0:00			Bahamas	Tecumse	2	43691	32803	23	No	Barber's Pt, HI	1/26/18 0:00	6d, 0h	Port McNeeley, HI	Kahului, HI	0	0	0	chec	Yuriy Kary	Vadym	1	No B/W
54		1/20/18 0:00	Y		USA	Navigatio	4	32664	13611	22	N/A	Honolulu, HI	1/14/18 0:00	?	Long Beach, CA	Apra, Guam	4429	8						
55		1/20/18 0:00			Singapore	Pacific	10	83824	55987	14	N/A	Honolulu, HI	1/25/18 0:00	5d, 0h	Okono Ter, HI	TBA	2459	2						
56		1/22/18 0:00			Netherlan	Antillen	6	82820	6147	19	None	Honolulu, HI	1/23/18 0:00	1d, 0h	San Diego, CA	Hilo, HI, US	1293	5						
57		1/22/18 0:00			USA	Hawaii	4	28219	3501	33	No Treatm	Honolulu, HI	1/24/18 0:00	2d, 0h	Los Angeles, CA	Oakland, CA	2435	24						
58		1/22/18 0:00			USA	Navigatio	4	57379	10402	19	N/A	Honolulu, HI	1/17/18 0:00	?	Long Beach, CA	Long Beach, CA	5054	15						
59		1/23/18 0:00			Netherlan	Antillen	6	82820	6147	19	None	Hilo, HI, US	1/25/18 0:00	2d, 0h	Honolulu, HI	Lahaina, HI	1293	5						
60		1/23/18 0:00			USA	Navigatio	4	37811	10126	24	None	Honolulu, HI	1/24/18 0:00	1d, 0h	Long Beach, CA	Oakland, CA	6520	21						
61		1/24/18 0:00			Bermuda	Cruise	6	30312	565	8	None	Honolulu, HI	1/28/18 0:00	4d, 0h	Los Angeles, CA	Pago Pago, HI	90	1						
62		1/25/18 0:00			Bermuda	Cruise	6	1E+05	3093	19	AMS - 2013	Hilo, HI, US	1/27/18 0:00	2d, 0h	San Diego, CA	Honolulu, HI	306.8	2						
63		1/25/18 0:00			Netherlan	Antillen	6	82820	6147	19	None	Lahaina, HI	1/26/18 0:00	1d, 0h	Hilo, HI, US	Nawiliwili	1293	5						
64		1/25/18 0:00			USA	Navigatio	4	40627	9318	22	N/A	Honolulu, HI	1/28/18 0:00	3d, 0h	Oakland, CA	Seattle, WA	4935	15						
65		1/26/18 0:00			USA	Bros	1	9657	5988	6	Closed Sys	Barge HBR	1/25/18 0:00	?	Rainier, OR	Rainier, OR	22	1						
66		1/26/18 0:00			USA	Bros	12	163	111	3	None	Barge HBR	1/25/18 0:00	?	Rainier, OR	Rainier, OR								
67		1/26/18 0:00			Bermuda	Cruise	6	1E+05	3093	19	AMS - 2013	Honolulu, HI	1/28/18 0:00	2d, 0h	Hilo, HI, US	Nawiliwili								
68		1/26/18 0:00			Netherlan	Antillen	6	82820	6147	19	None	Nawiliwili	1/27/18 0:00	1d, 0h	Lahaina, HI	Kona, HI, US								
69		1/27/18 0:00			USA	Pasha	4	34077	16211	17	N/A	Honolulu, HI	1/28/18 0:00	1d, 0h	Los Angeles, CA	Los Angeles, CA	763	14						
70		1/27/18 0:00			Netherlan	Antillen	6	82820	6147	19	None	Kona, HI, US	1/28/18 0:00	1d, 0h	Nawiliwili	Ensenada, CA	1293	5						
71		1/27/18 0:00			Bermuda	Cruise	6	1E+05	3093	19	AMS - 2013	Nawiliwili	1/29/18 0:00	2d, 0h	Honolulu, HI	Lahaina, HI	150	1						
72		1/27/18 0:00			USA	Tankers	10	85387	62362	17	None	Barber's Pt, HI	1/29/18 0:00	2d, 0h	Valdez, AK	Valdez, AK	1731	2						
73		1/28/18 0:00			Bermuda	Cruise	6	1E+05	3093	19	AMS - 2013	Lahaina, HI	1/30/18 0:00	2d, 0h	Nawiliwili	Ensenada, CA	150	1						
74		1/28/18 0:00			USA	Navigatio	4	32575	11983	21	Fresh Water	Honolulu, HI	1/30/18 0:00	2d, 0h	Long Beach, CA	Guam, USA	6900	16						
75		1/29/18 0:00			USA	Hawaii	7	37548	4318	11	N/A	Honolulu, HI	1/30/18 0:00	1d, 0h	San Diego, CA	Kahului, HI	2733	9						

OMB number 1625-0069
Exp. date: 31-Dec-2018

Ballast Water Management Report

Vessel Information

Vessel name:

ID number: IMO number:

Country of Registry: Select country:

Owner/operator:

Type: Select vessel type: Gross Tonnage:

Ballast water volume units: cubic meters

Total ballast water capacity: cubic meters Number of tanks on ship:

Onboard BW Management System:

Voyage Information

Arrival port (port and state): Select state:

Arrival date:

Last port (port and country): Select country:

Next port (port and country): Select country:

Total ballast water on board: cubic meters Number of tanks in ballast:

Number of tanks discharged:

Alternative BW management conducted, per instructions from COTP: ☐

Certificate of accurate information

By checking this box, I attest to the accuracy of the information provided and that ballast water management activities were in accordance with the ballast water management plan required by CFR 151.205(g): ☒

Responsible Officer's name and title:

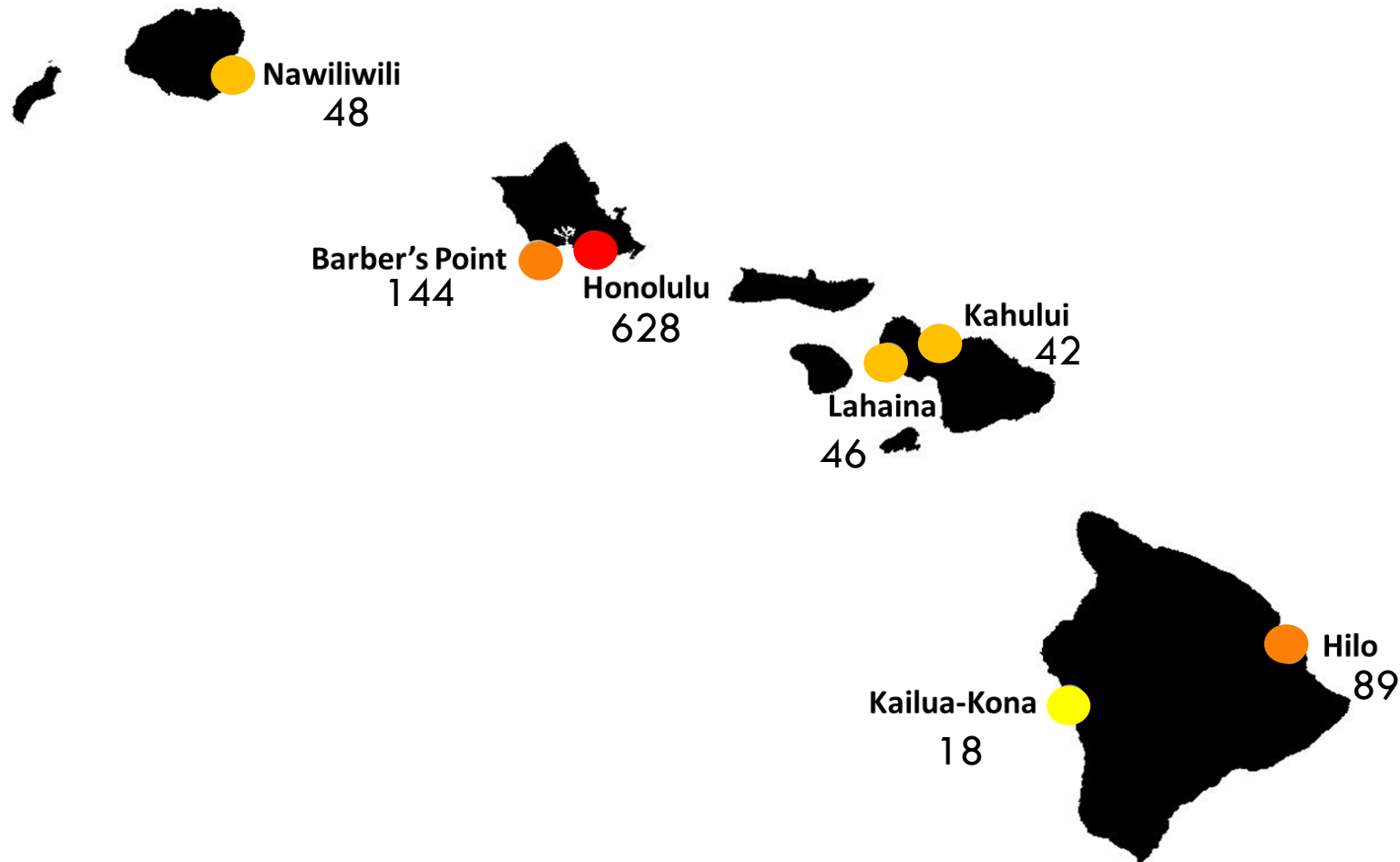
Report type: New report

Submitted by: Contact information:

Ballast Water History

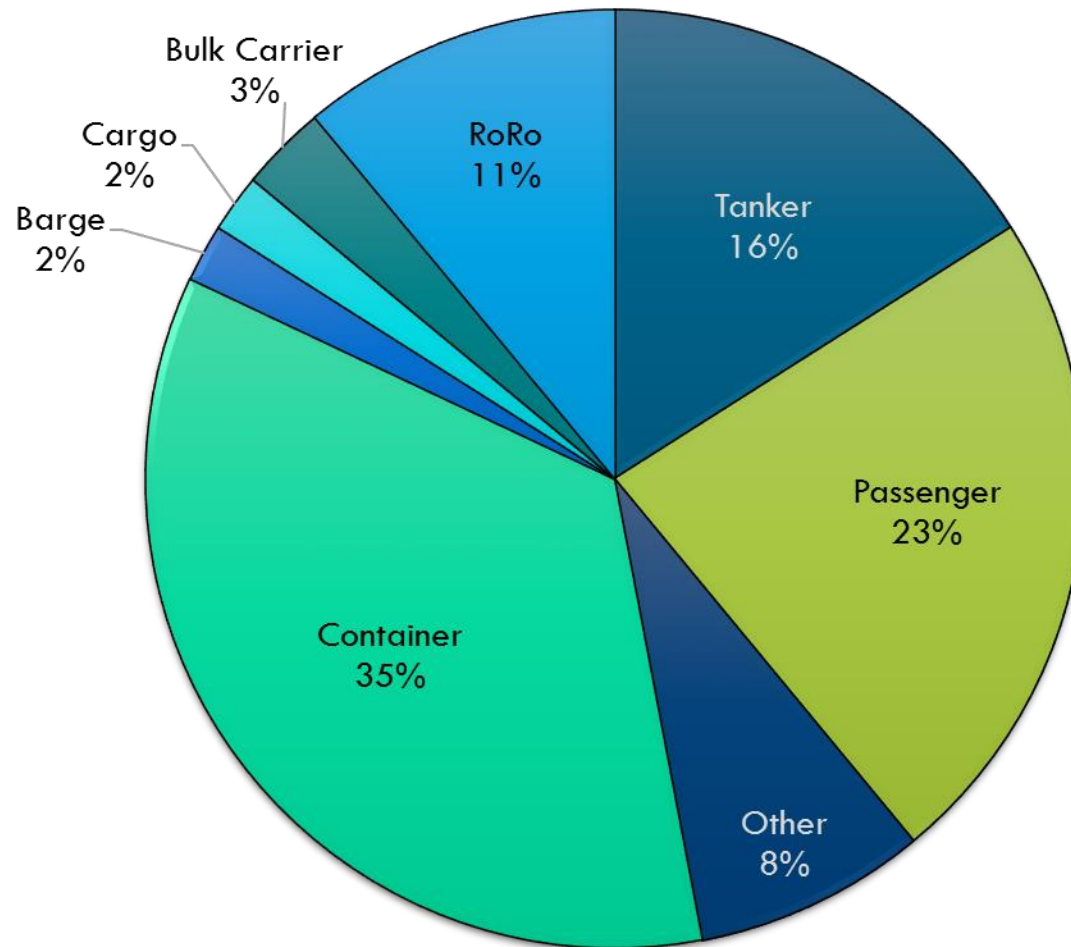
On the following page(s), provide the ballast water history for each tank discharged into the waters of the United States or to a reception facility, en route to or at the arrival port. Vessels entering the Great Lakes or Hudson River (north of George Washington Bridge) from beyond the US EEZ must also provide the history for empty tanks that underwent alternative management.

WHERE ARE SHIPS ARRIVING IN HAWAII?



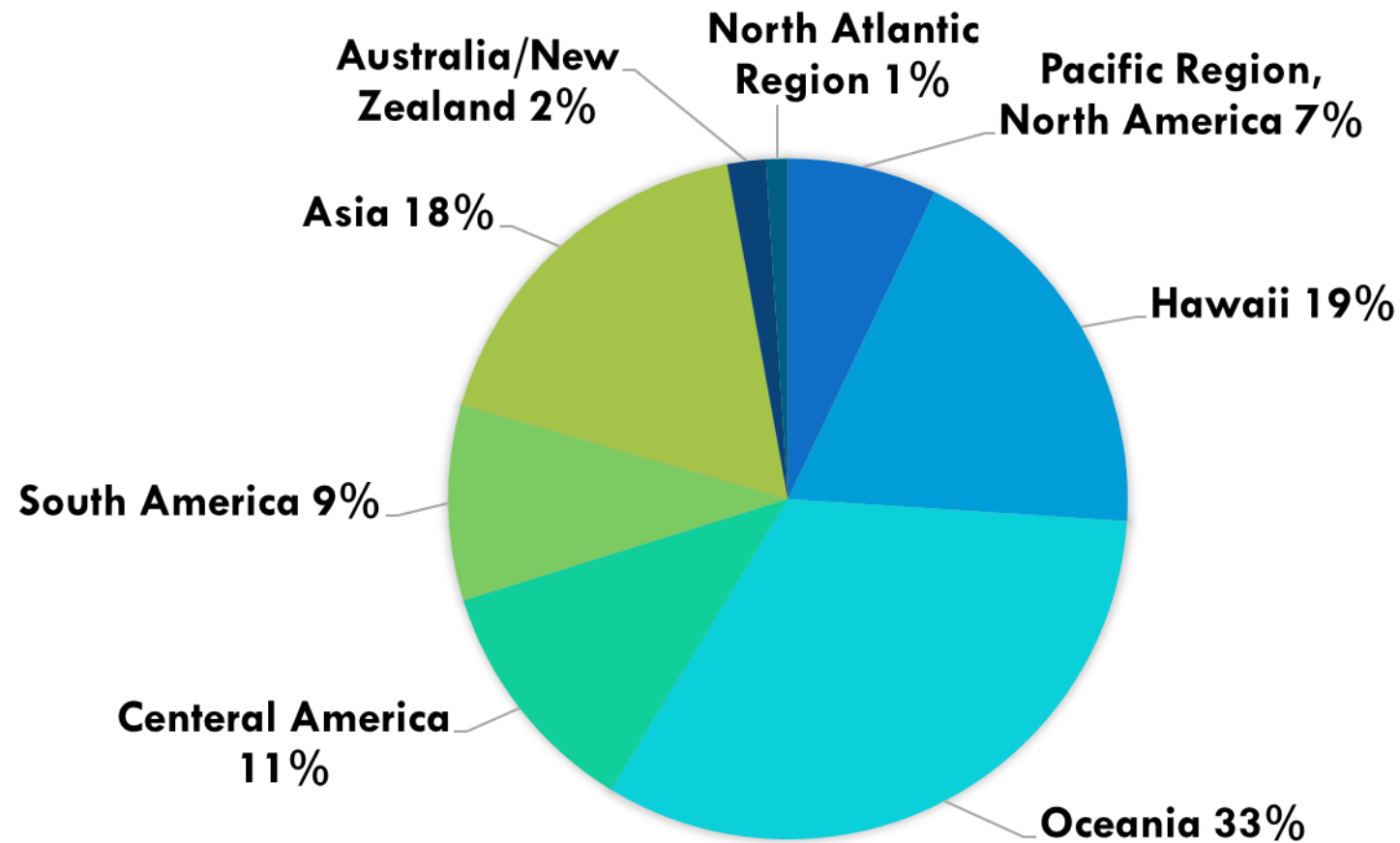
Total Arrivals=1021

VESSEL ARRIVALS BY SHIP TYPE



Total number of vessel arrivals = 1029

WHERE ARE SHIPS ARRIVING FROM?



Total number of vessel arrivals = 1029

2017 PORTCALL DATA VS. HAWAII RECEIVED FORMS

TODAY IN HAWAII'I


Live vessel information for Hawaii.PortCall.com

TRAFFIC SCHEDULE
Daily arrivals, departures, and shifts

VESSELS IN PORT
List of current vessels

CRUISE SCHEDULE
Yearly cruise ship schedules

VIEW MAP
View berth locations



View by island or port

Show All

for Mar 25, 2019

<

Today

>

Nawiliwili - Kauai

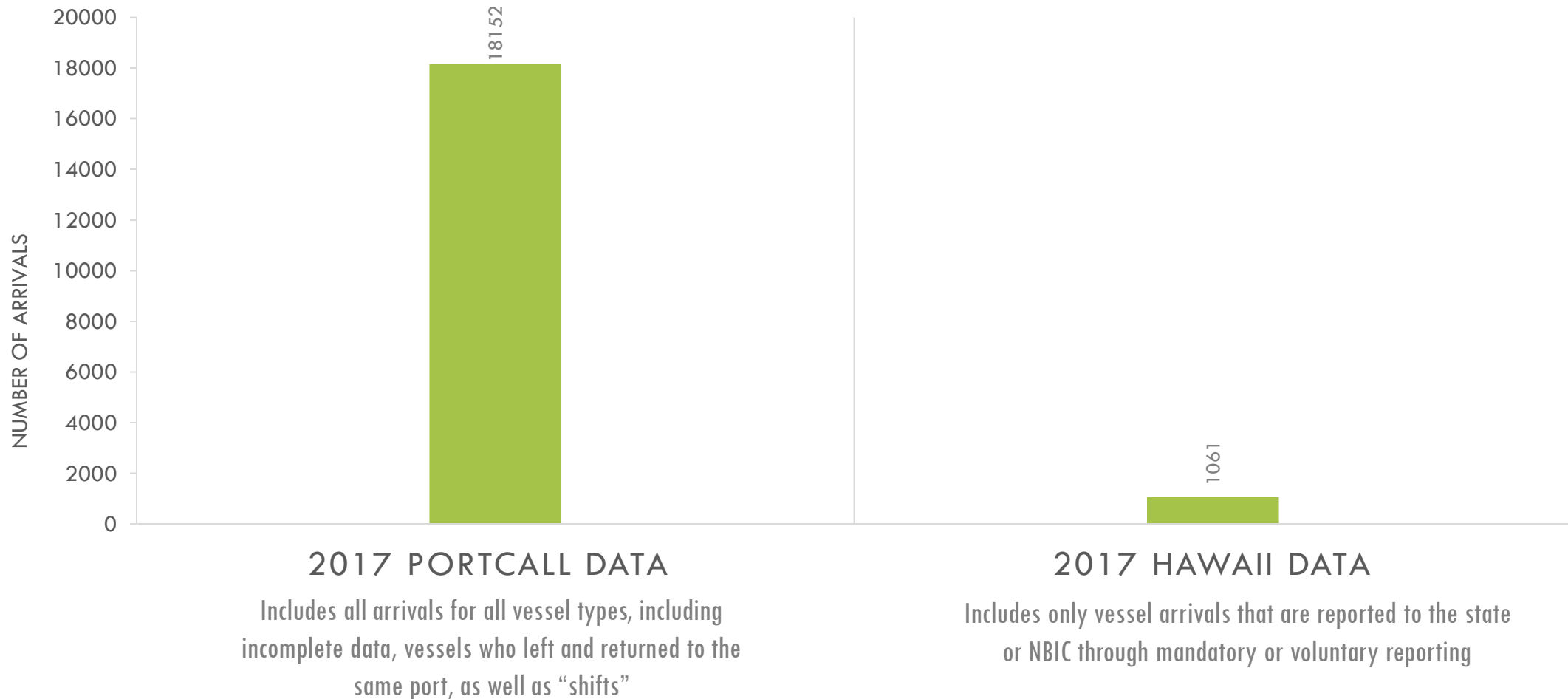
06:00	IN	Huki Kai	SEA to Pier 3	
13:00	OUT	Huki Kai	Pier 3 to SEA	
18:00	OUT	PRINS HENDRIK	Pier 3 to SEA	Tentative

Port Allen - Kauai

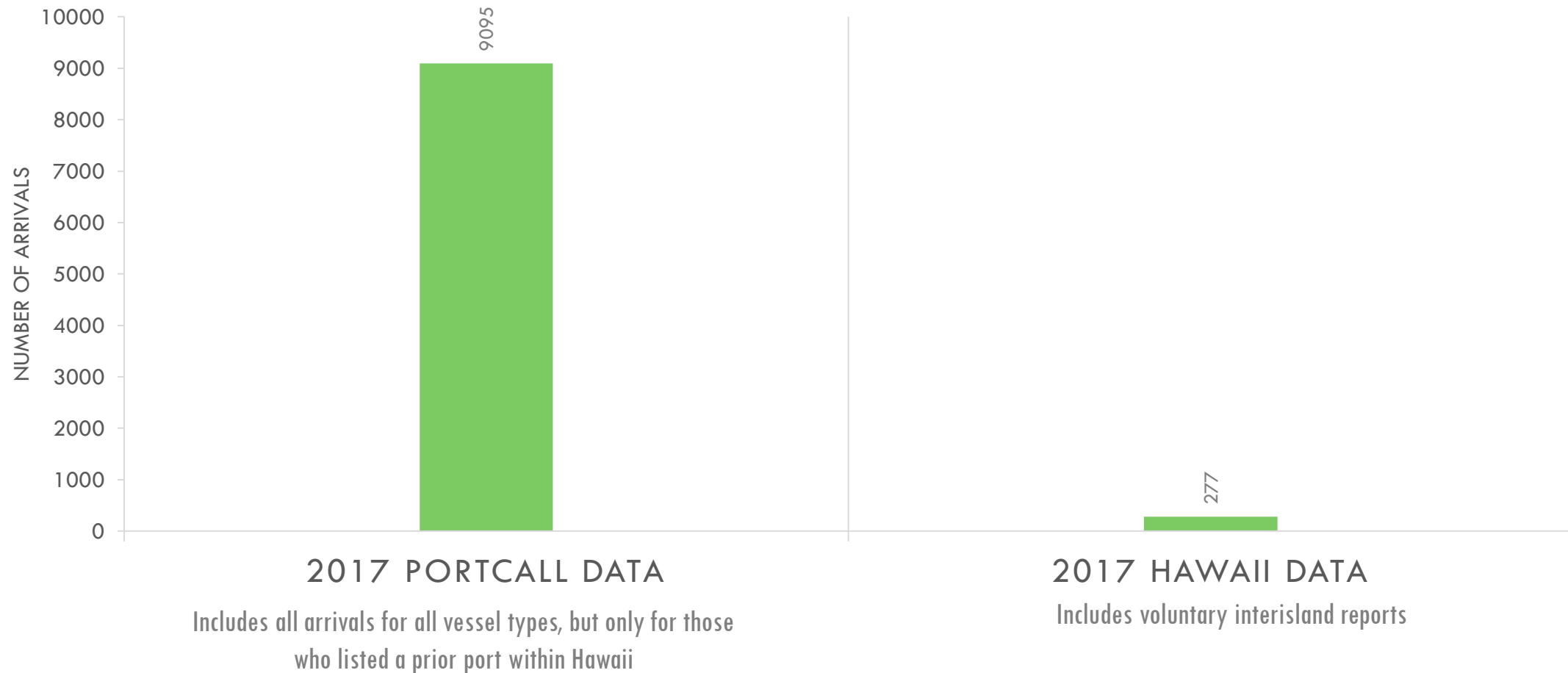
Honolulu - Oahu

03:00	IN	WAIALEALE	SEA to Pier 31	moored at 03:35
03:30	IN	HALEAKALA	SEA to Pier 51C	moored at 05:55
06:49	SHIFT	HO'OMAKA HOU	Pier 39B to Pier 40A	moored at 07:03

2017 “RAW” PORTCALL DATA VS. HAWAII RECEIVED FORMS 2017



2017 “CLEAN” PORTCALL DATA VS. HAWAII INTER-STATE 2017



BALLAST WATER REPORTING

Ballast Water History

Tank name/number	Location(s)		Tank capacity	cubic meters
Event	Date	(for Management event include Start pt. / End pt.)	Volume	
Discharge to US waters				
Select event				
Select event				
Select event				
Select event				

If BW management was *not* conducted for this tank, select one of the following reasons

Tank name/number	Location(s)		Tank capacity	cubic meters
Event	Date	(for Management event include Start pt. / End pt.)	Volume	
Discharge to US waters				
Select event				
Select event				
Select event				
Select event				

If BW management was *not* conducted for this tank, select one of the following reasons

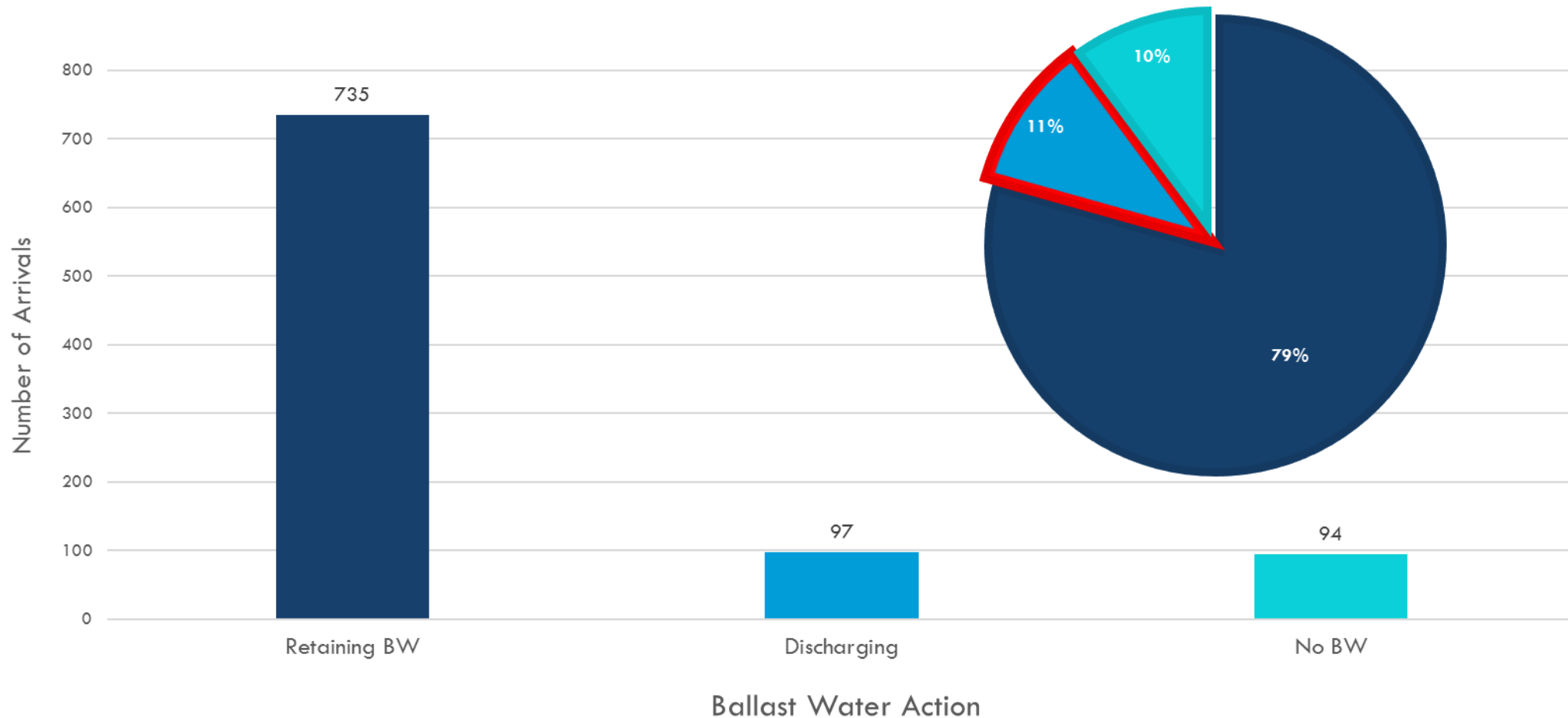
Tank name/number	Location(s)		Tank capacity	cubic meters
Event	Date	(for Management event include Start pt. / End pt.)	Volume	
Discharge to US waters				
Select event				
Select event				
Select event				
Select event				

If BW management was *not* conducted for this tank, select one of the following reasons

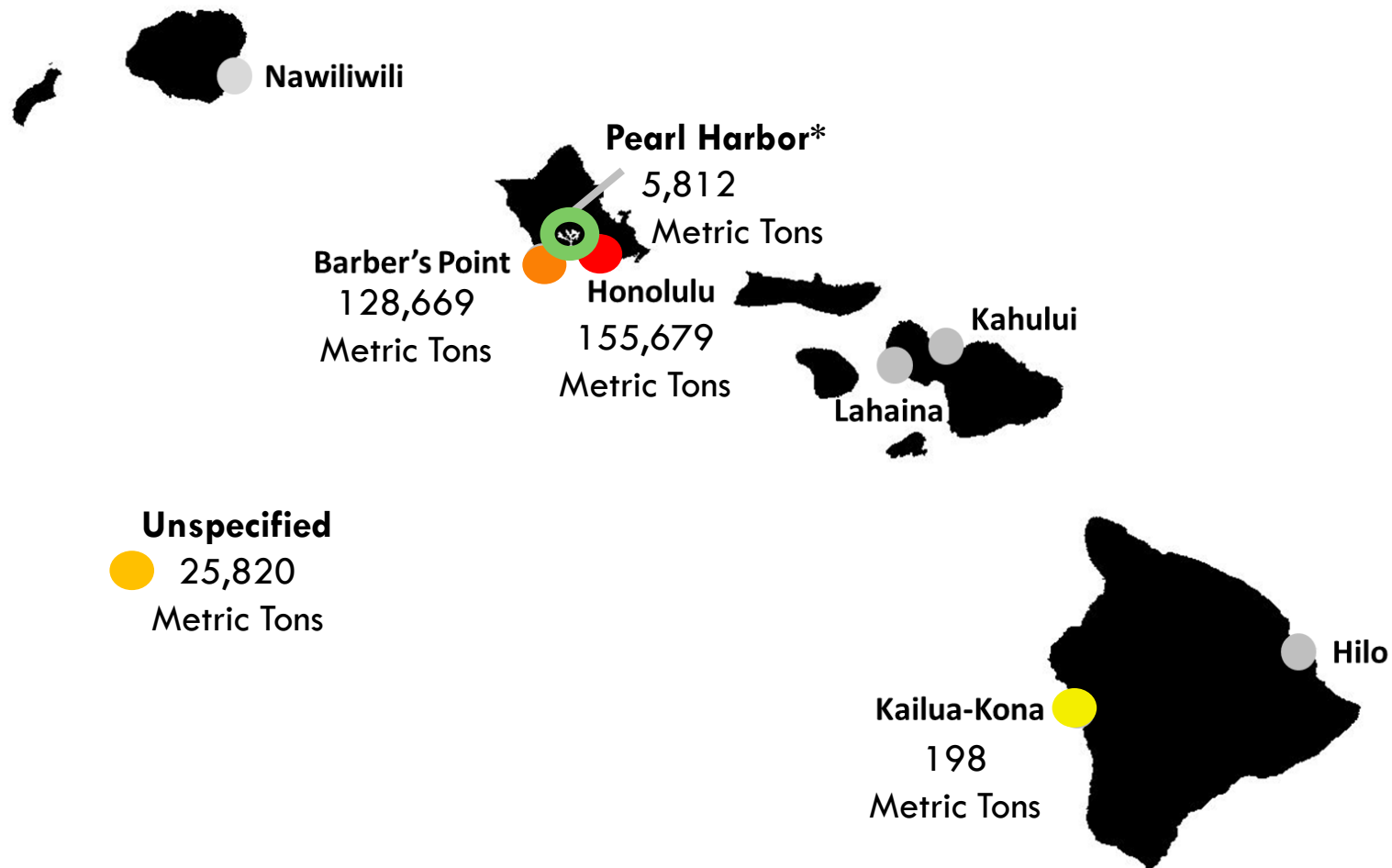
Tank name/number	Location(s)		Tank capacity	cubic meters
Event	Date	(for Management event include Start pt. / End pt.)	Volume	
Discharge to US waters				
Select event				
Select event				
Select event				
Select event				

If BW management was *not* conducted for this tank, select one of the following reasons

SHIP ARRIVALS BY BALLAST WATER ACTION

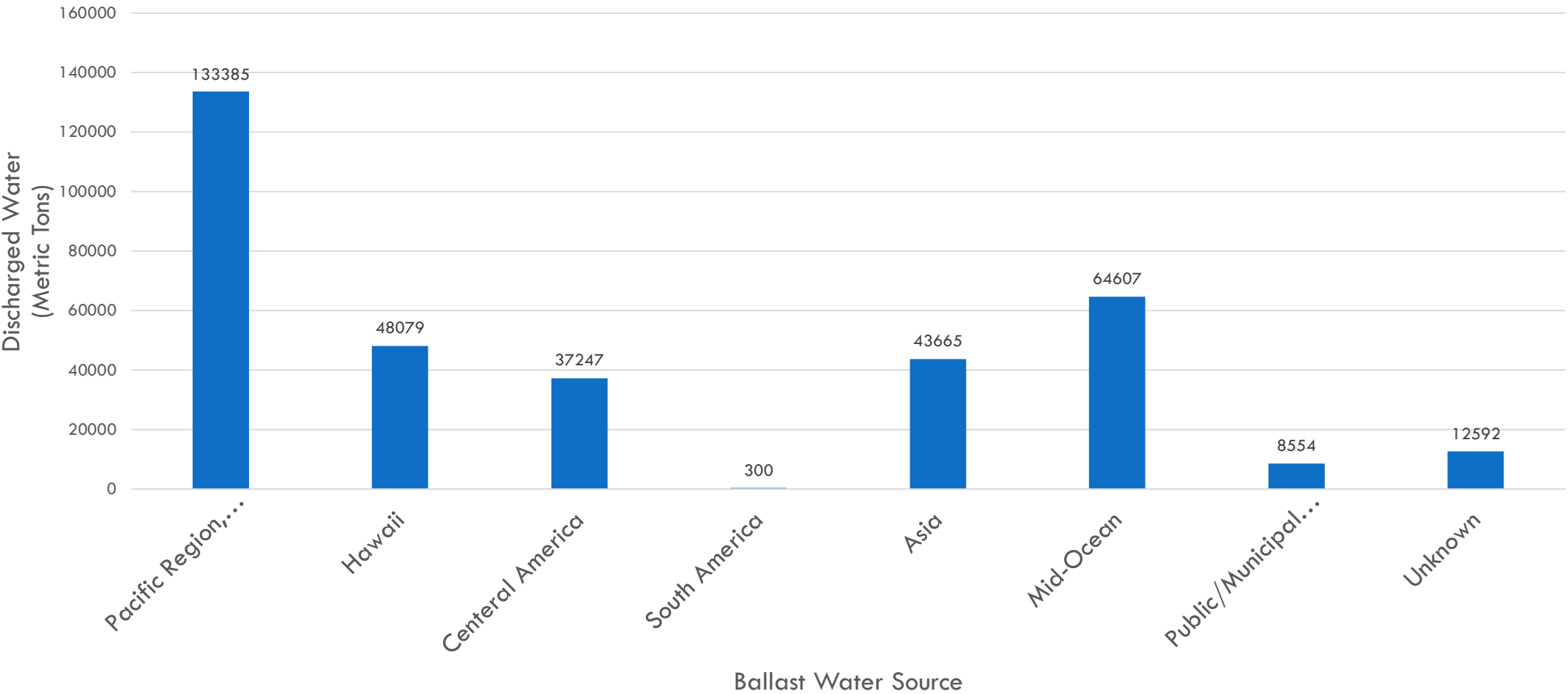


VOLUME OF BALLAST WATER DISCHARGED BY PORT



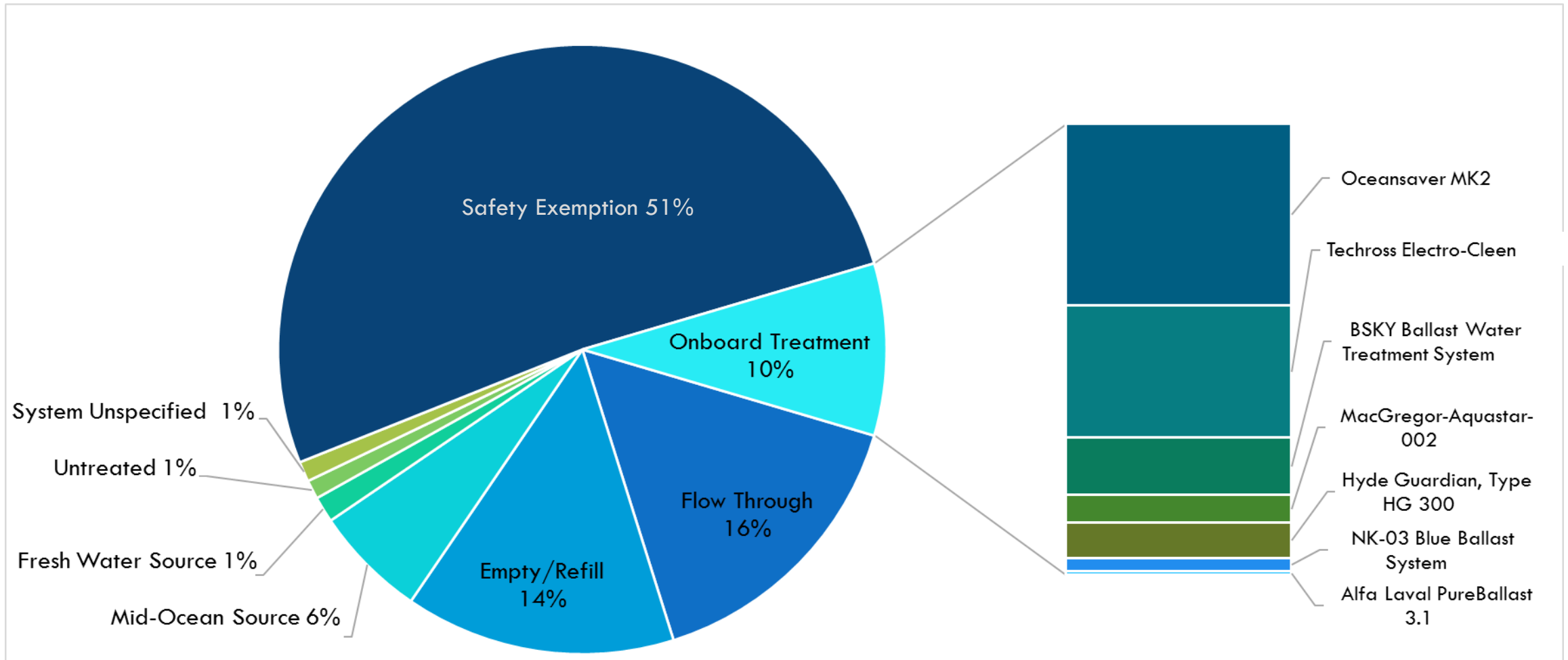
Total Ballast Water Discharge= 316,178 Metric Tons

VOLUME OF BALLAST WATER DISCHARGE BY SOURCE



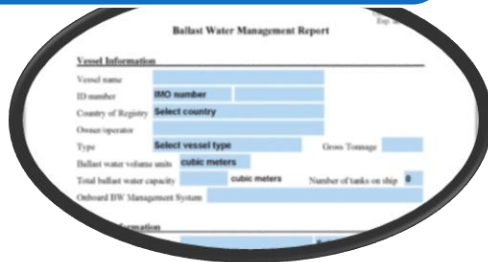
Total Ballast Water Discharge= 316,178 Metric Tons

BALLAST WATER TREATMENT METHODS



RISK MATRIX

Reporting
Form Data
Entry



A screenshot of a "Ballast Water Management Report" form. The form includes sections for "Vessel Information" and "Ballast Water Management". Fields include Vessel name, ID number, Country of Registry, Gross Tonnage, Type, Ballast water volume units, Total ballast water capacity, and Number of tanks on ship. Some fields are pre-filled with text like "IMO number", "Select country", "Select vessel type", "cubic meters", and "8".

Quantitative
Risk Analysis

Decision to
Board for
Inspection



RISK MATRIX (GENERAL RISK)

Total of 20 points

Maximum Points (Highest Risk) ← → Least Points (Lowest Risk)

Discharging Ballast	10 Points Vessel is discharging ballast water into Hawaii State waters			0 Points Vessel is retaining ballast water or does not have ballast water on board		
Reporting Form Compliance	5 points Form not submitted to DLNR	4 points Ballast water information was incomplete	3 points NBIC and DLNR data did not match	2 points Form was not submitted 24 hours prior to arrival	1 point Vessel information was incomplete or inaccurate	0 points Ballast Water form was submitted on time and accurate
“Flagged” Vessels	5 Points Vessel was added to “flagged” list due to; multiple forms incomplete/late, hasn’t submitted reporting forms to DLNR or has not been responsive to DLNR email requests for inquiry			0 Points Vessel was not added to “flagged” list		

RISK MATRIX (TANK RISK)

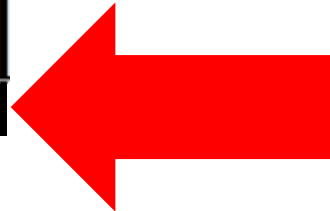
Analyzes up to 20 tanks for a total of 80 points

Maximum Points (Highest Risk) ← → Least Points (Lowest Risk)

Management System	2 Points Tank was untreated and will be discharged into Hawaiian waters	0 Points Vessel is retaining ballast water or does not have ballast water on board	
Tank Volume (Shapoori & Gholami, 2014)	.5 Points Tank volume is over 1,000 cubic meters	.2 Points Tank volume is between 100-1,000 cubic meters	0 Points Tank volume less then 100 cubic meters
Tank Storage Time (Shapoori & Gholami, 2014)	.5 Points Tank storage time was less then 5 days	0 Points Tank storage time was longer then 5 days	
Tank Water Source (Davidson et al., 2014)	1 Points Ballast water was obtained from a “high risk area”	0 Points Ballast water was not obtained from a “high risk area”	

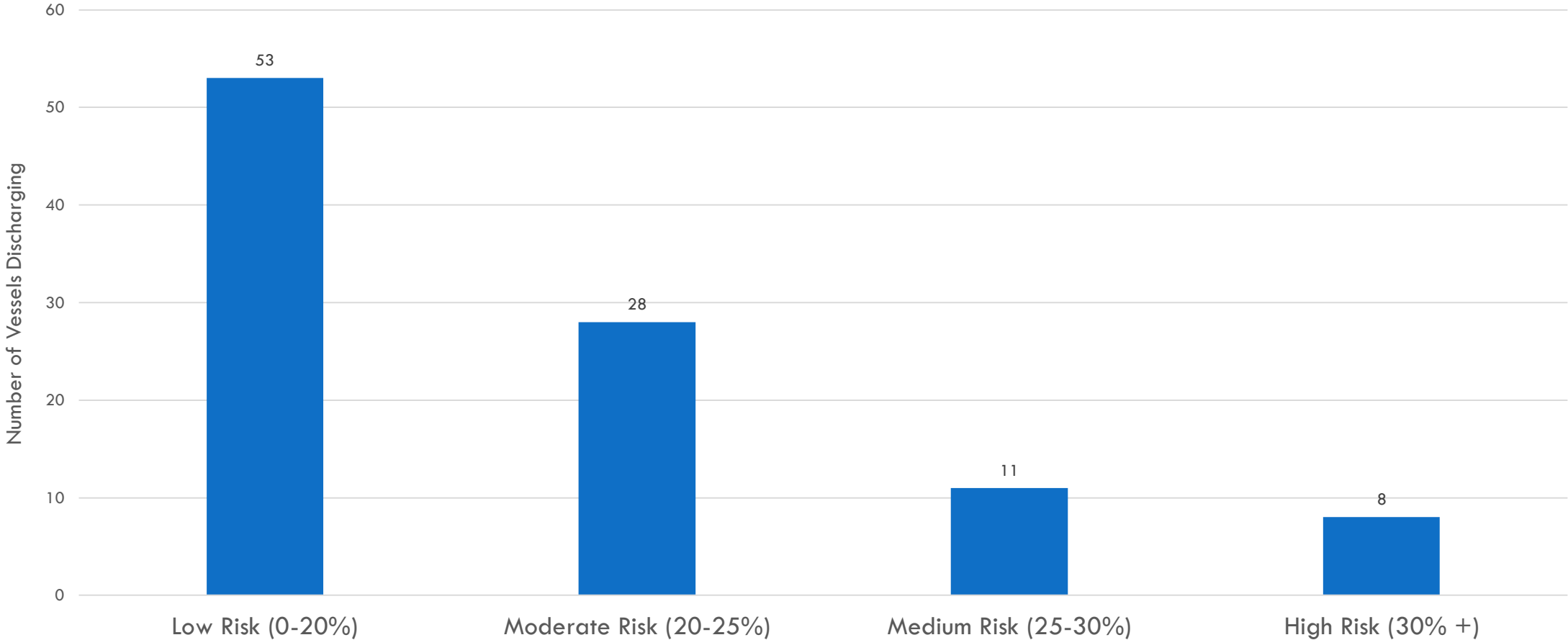
RISK MATRIX EXAMPLE

Vessel	Received	Date of Arrival	Form Info.	"Flagged"?	Risk Number
	4/5/18 0:00	4/5/2018	2	-	15.4



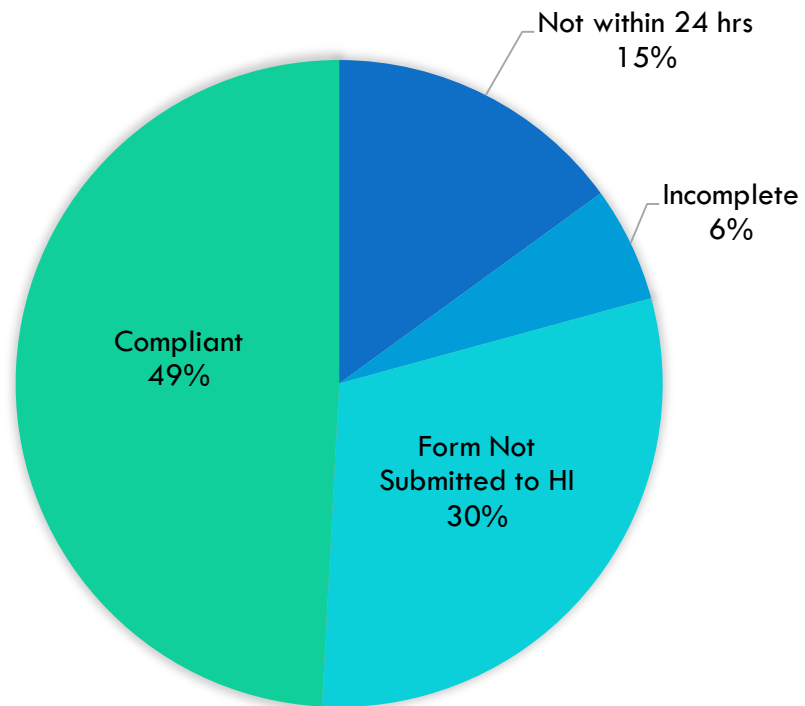
Tank #	Source Date	BW Source	source lat	source long	BW Volume	MGMT Date	MGMT Method ("safety exemption")	Management volume	Discharge Date	Total Time in Ballast (Days)	BW Discharge Locaton	Discharge Volume	Mgmt. Risk	Tank Volume Risk	Tank Time Risk	Tank Source Risk	Tank Risk Value
1	4/5/2018	Hawaii	19.897	-155.6	192.5	4/5/2018	Hyde Guard	192.5	4/5/2018	0	Honolulu, I	192.5	0	0.2	0.5	1	1.7
2	4/5/2018	Hawaii	19.897	-155.6	190.1	4/5/2018	Hyde Guard	190.1	4/5/2018	0	Honolulu, I	190.1	0	0.2	0.5	1	1.7

2018 DATA RISK ANALYSIS

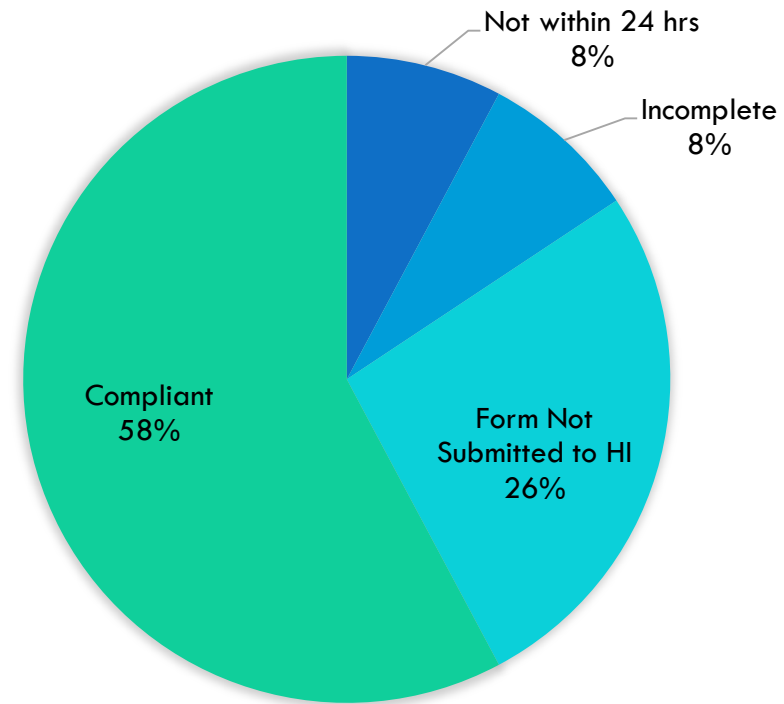


2017 AND 2018 COMPLIANCE WITH NBIC


2017



2018



IMPROVING 2019 COMPLIANCE WITH MARINE TRAFFIC


 MarineTraffic


Live Map

Explore ▾

Community ▾

Pricing ▾





Explore

Vessels ▾

Ports ▾

Arrivals & Departures ▾

Port Calls

Berth Calls

Lights

Stations

Port Congestion
















Quick Search: HONOLULU

Select a Quick View ▾

Add Filter ▾

Vessel Type - Generic: Cargo Vessels,Tank...

Port Call Type: Arrival

<input type="checkbox"/>	Vessel Name	Port Call Type	Current Port	Ata/atd	Voyage Origin Port	Leg Start Port/anch	In Transit Port Calls	Imo	Vessel Generi	
<input type="checkbox"/>	MAHIMAHI	ARRIVAL	HONOLULU	2019-03-23 07:51 LT (UTC -10)	OAKLAND	OAKLAND	Not in Transit	7907996		
<input type="checkbox"/>	HAI SOON 39	ARRIVAL	HONOLULU	2019-03-22 14:16 LT (UTC -10)	BARBERS POINT	BARBERS POINT	Not in Transit	9188520		
<input type="checkbox"/>	ACACIA MING	ARRIVAL	HONOLULU	2019-03-22 05:02 LT (UTC -10)	YOKOHAMA	YOKOHAMA	Not in Transit	9505522		
<input type="checkbox"/>	HORIZON SPIRIT	ARRIVAL	HONOLULU	2019-03-21 00:50 LT (UTC -10)	LOS ANGELES	LOS ANGELES	Not in Transit	7729459		
<input type="checkbox"/>	DANIEL K.INOUYE	ARRIVAL	HONOLULU	2019-03-20 15:37 LT (UTC -10)	LONG BEACH	LONG BEACH	Not in Transit	9719056		
<input type="checkbox"/>	SAMOANA	ARRIVAL	HONOLULU	2019-03-18 15:41 LT (UTC -10)	NUKU ALOFA	HONOLULU ANCH	Not in Transit	9164550		
<input type="checkbox"/>	MARJORIE C	ARRIVAL	HONOLULU	2019-03-17 20:42 LT (UTC -10)	LOS ANGELES	LOS ANGELES	Not in Transit	9619684		

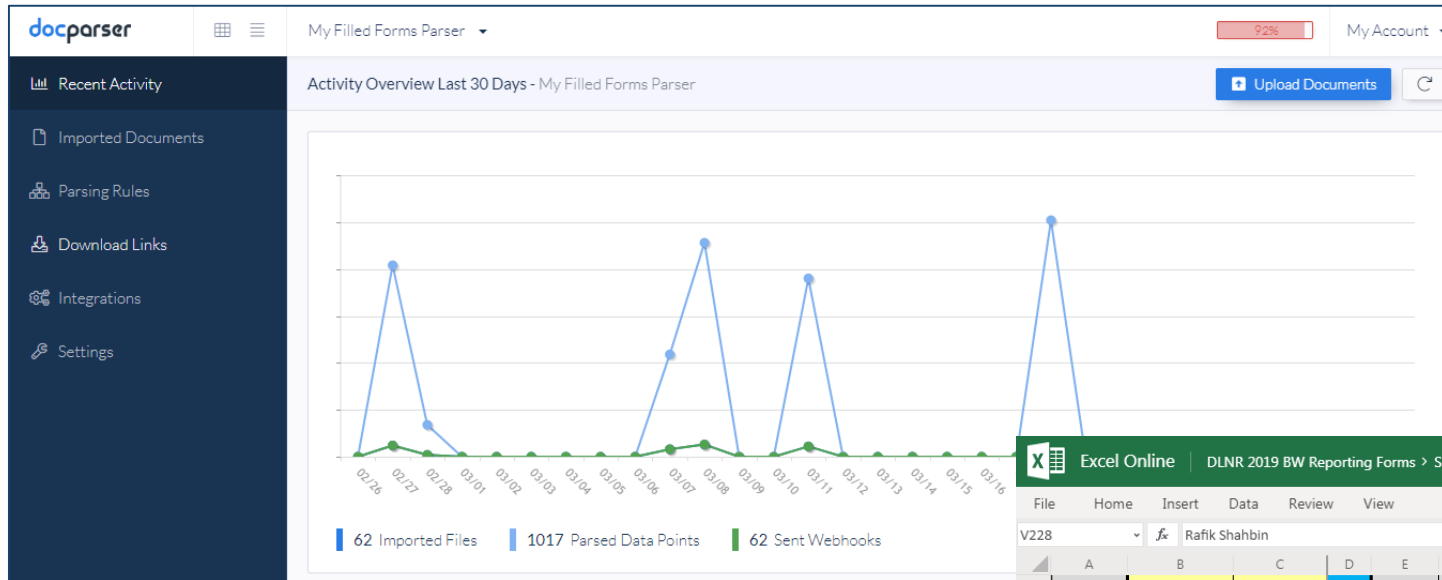
Found 44 records

< Page 1 of 3 >

Rows per page: 20 ▾

Support

DOCPARSER AND SHAREPOINT



Excel Online

DLNR 2019 BW Reporting Forms > Shared Documents

BW Reports 2019 edit - Editable

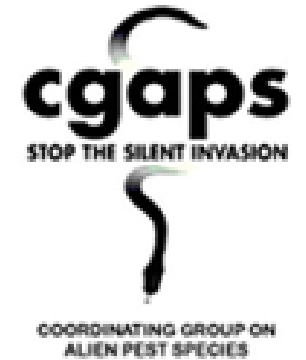
Devine, Gen M

FileHomeInsertDataReviewViewTell me what you want to doOpen in Excel

ShareComments

V228Rafik Shahbin

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	BW Status	Vessel	Date & Time Received	Amended	IMO #	Country of Registry	Owner/Operator	Vessel Classification	Gross Tonnage	BW Total Capacity	Total # BW	BW MGMT. SYST	Arrival Port	Arrival Date & Time	Hours Sub. Prior To Arrival (should be 0)	Last Port of Call	Next Port of Call	Total BW	# tanks in Ballast	# Tanks Discharge	Responsible Officer
1	Retaining BW		1/18/19 4:21			Panama		Container	113,562	9,309	20	NO	Kona-Hawaii	1/18/19 7:35	06:3h	Honolulu	Honolulu	4,370	2	0	A. Fosmo
49	Retaining BW		1/15/19 14:18			United States		Container	40,627	10,252	22	NONE	Honolulu Hawaii	1/19/19 17:18	4d, 3h	Oakland, CA	Seattle, WA	953 cubic	16	0	G. Ferris, Chief
50	Retaining BW		1/18/19 19:18	*		Panama		Passenger	113,562	11,691	30	NO	Hilo Hawaii	1/20/19 6:12	1d, 10h	Honolulu	Ensenada	2	0	Giuseppe	
51	Retaining BW		1/20/19 10:59			United States		Container	32,575	11,691	21	NA	Honolulu Hawaii	1/20/19 18:35	0d, 7h	Long Beach	Guam United	6,775	18	0	James Kobis
52	Retaining BW		1/18/19 16:19			United States		Other	47,279	12,540	18	None	Honolulu Hawaii	1/21/19 5:11	2d, 12h	Los Angeles	Kahului, HI	7,272	11	0	Aaron
53	Discharging		1/23/19 6:16	Y		United States		Other	47,279	12,540	18	None	Kahului Hawaii	1/21/19 5:57	-	Honolulu, HI	San Diego, CA	9,324	14	1	Aaron
54	Discharging		1/18/19 6:17			United States		Barge	14,215	6,066	6	UNMANNED	BARGE HBR Haw	1/21/19 7:00	3d, 0h	RAINIER, OR	RAINIER, OR	2,788	6	6	RICHARD
55	Retaining BW		1/18/19 16:19	±		United States		Other	47,279	12,540	18	None	Kahului Hawaii	1/22/19 22:02	4d, 6h	Honolulu, HI	San Diego, CA	9,324	14	0	Aaron
56	Retaining BW		1/17/19 15:38	±		Malta		Tanker	82,870	50734.2	14	SAMSUNG	Barber's Point Ha	1/23/19 0:00	5d, 8h	Melilla, Libya	Balboa	251	4	0	RACEALA
57	Retaining BW		1/22/19 6:58			Bermuda		Passenger	113,561	2,250	8	AMS-2013-	HILO Hawaii	1/23/19 8:14	1d, 1h	LOS ANGELES	HONOLULU	1,314	5	0	Plamen
58	Retaining BW		1/22/19 20:10			United States		Container	48,409	21,915	26	AMS-2016-	Honolulu Califor	1/23/19 15:48	0d, 19h	Long Beach	Oakland	14,913	26	0	Lee Townsend
59	Retaining BW		2/25/19 18:24			United States		Container	34,077	20,946	21	None	Honolulu Hawaii	1/23/19 22:52	?	San Pedro	San Pedro	6,105	10	0	G. Ferris, Chief
60	Retaining BW		3/6/19 15:34			Cyprus		Container	7170	3,728	28	NIL	Honolulu Hawaii	1/24/19 0:00	?	Yokohama	Yokohama	2,614	21	0	Iuryvnenko
61	Discharging		1/23/19 7:40			Bermuda		Passenger	113,561	2,250	8	AMS-2013-	HONOLULU Haw	1/24/19 6:15	0d, 22h	HILO United	LAHAINA	1,314	5	4	Plamen
62	Retaining BW		1/25/19 15:14	Y		Malta		Tanker	82,870	50734.7	14	SAMSUNG	Barber's Point Ha	1/24/19 11:54	-	Melilla, Libya	Balboa	251	1	0	RACEALA
63	Retaining BW		1/19/19 23:23			Panama		Ro-Ro	70,497	6,990	20	AMS-2016-	HONOLULU, Haw	1/24/19 13:09	4d, 13h	MEKO	LAZARO	2,282	20	0	SOUNAK
64	Discharging		1/23/19 0:30	±		Liberia		Tanker	50,373	88,796	15	AMS-2013-	BARBERS POINT	1/24/19 15:30	2d, 15h	WHANGAREI	YOSU-South	34,028	33	33	SHLEDON
65	Discharging		FAX			Cook Islands		Tanker	3,878	2,474	10	AMS-2013-	Barbers Point Ha	1/25/19 0:00	?	Balboa	Barbers Point	1,330	6	6	Aung Soe Lw
66	Discharging		1/23/19 0:30			Bermuda		Passenger	113,561	2,250	8	AMS-2013-	LAHAINA Hawaii	1/25/19 7:00	0d, 19h	Honolulu	Navillifili	560 cubic	1	0	Plamen



THANK YOU! QUESTIONS?

gen.m.devine.intern@hawaii.gov
julie.c.kuo@hawaii.gov

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NBIC DATA TRENDS (2010-2018)

