

HAWAI'I BALLAST WATER AND BIOFOULING PROGRAM

Pacific Ballast Water Group Meeting
March 28th, 2023



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Hawai'i Division of Aquatic Resources



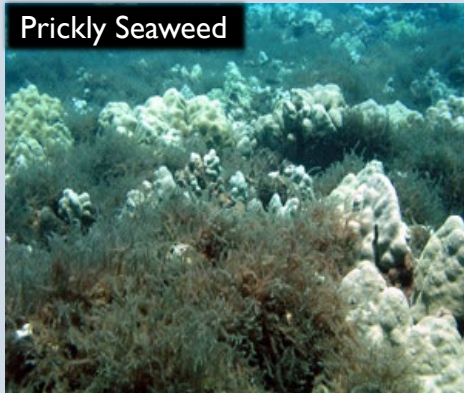
AIS IN HAWAI'I



Upside Down Jellyfish



Peacock Grouper



Prickly Seaweed



Smothering Seaweed



Gorilla Ogo

Introduced Aquatic Species in Hawai'i:

- 463 marine species (inverts, fish and algae)
- 86 freshwater species (inverts, fish, water plants)
- 549 total (underestimate)

78% of marine invasive species in Hawai'i arrive via ballast water or hull fouling.

CURRENT REGULATORY FRAMEWORK

- USCG – 33 CFR Ch 151 (primarily ballast water regulation)
- EPA – Clean Water Act via Vessel General Permit (VGP)
- Hawaii:
 - HRS § 187A-32 – designates DLNR as lead agency for AIS issues related to BW&BF
 - HAR Ch 13-76 – Ballast Water Regulations
 - Risk Assessment tool developed by AIS team allow us to target vessels with risky ballast water operations for inspections

OMB number 1625-0069
Exp. date: 31-July-2023

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 **Select units**

Total ballast water capacity Number of tanks on ship

Onboard BW Management System

Last dry dock date

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 Number of tanks in ballast

Number of tanks discharged

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 **Select report type**

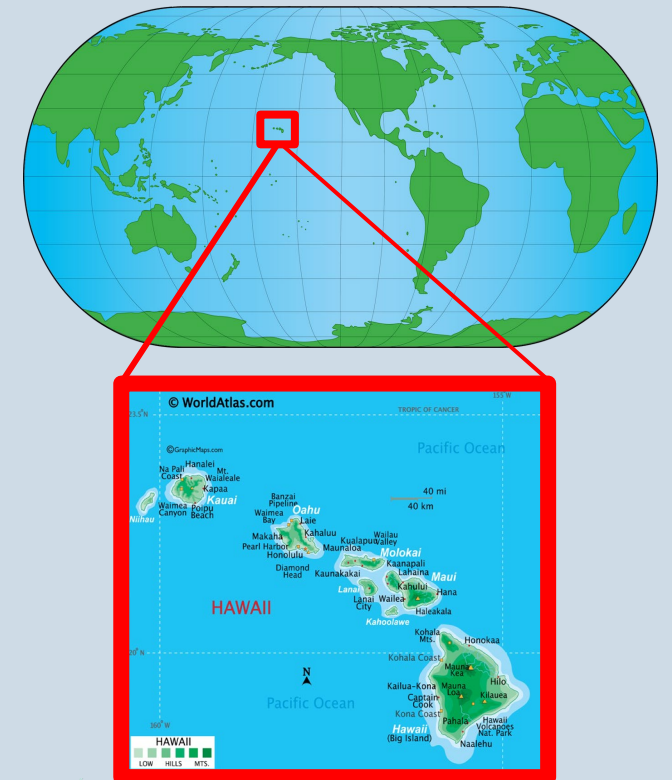
Submitted by Contact information

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.

VESSEL ARRIVALS IN 2022

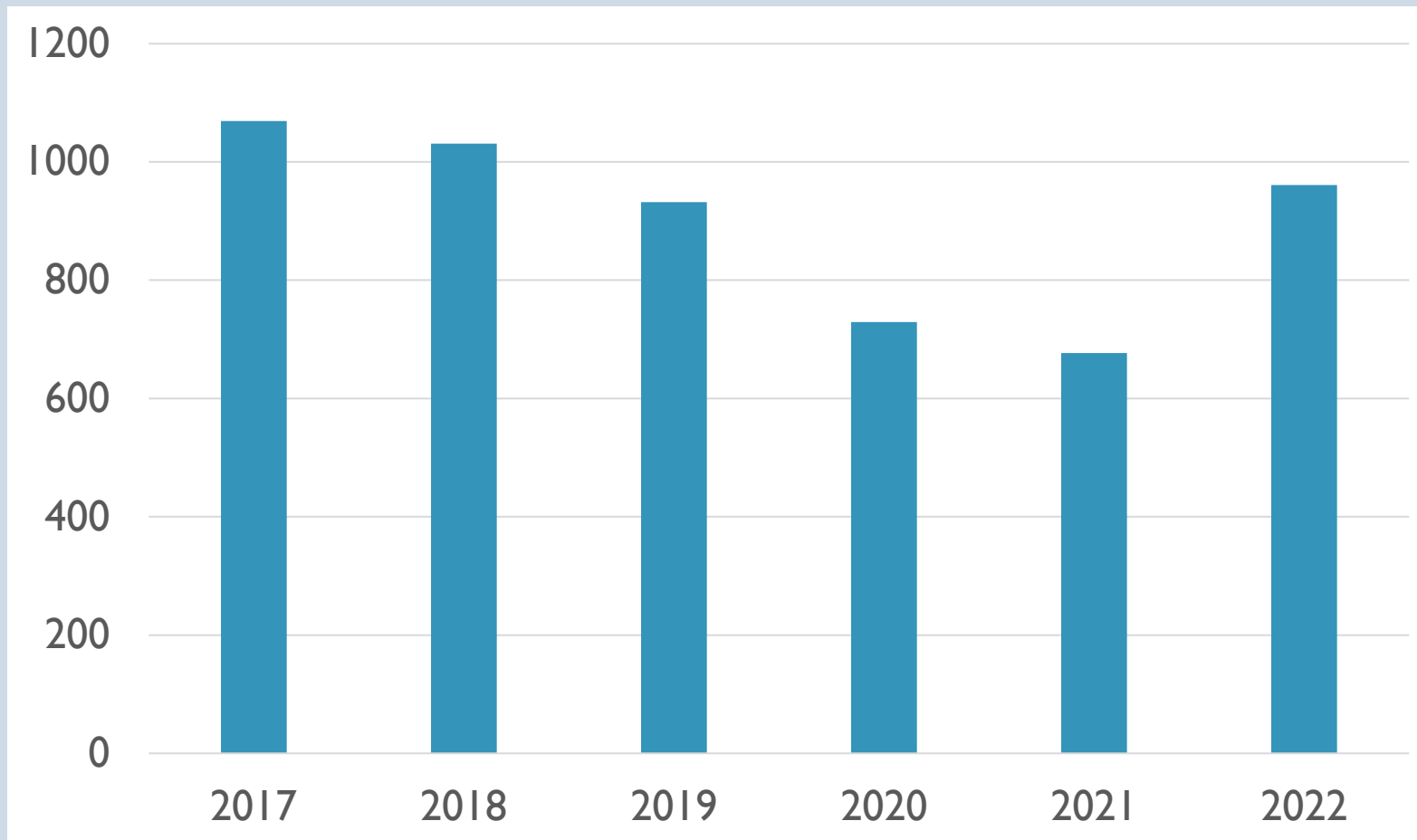
- **823** vessels carrying ballast water arrived in Hawai'i ports in 2022 determined through BW reporting forms and Marine Traffic
- **677** vessels submitted Ballast Water Management Reports
- **86%** of vessels retained ballast water
- **40** vessels discharged ballast water



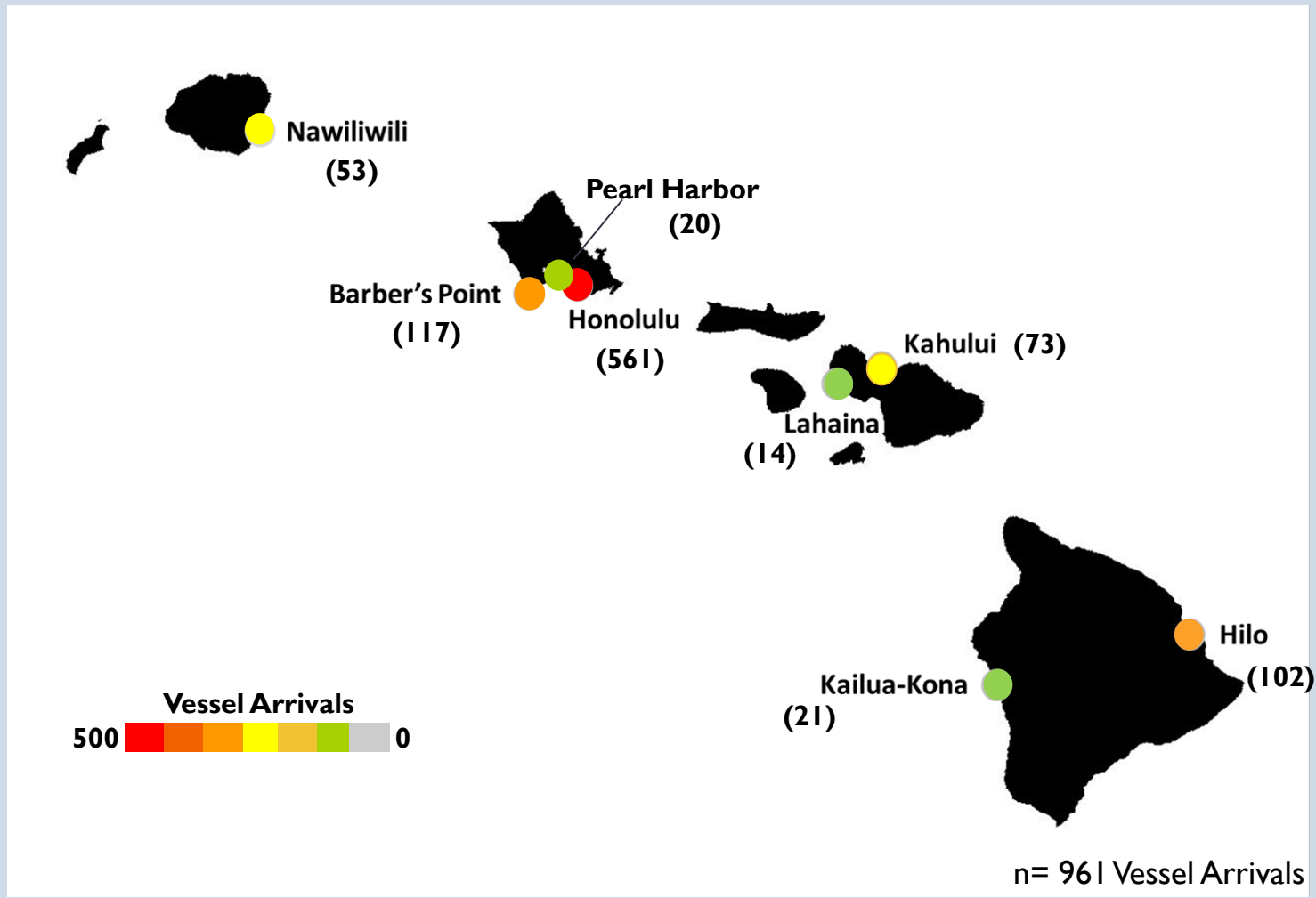


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VESSEL ARRIVALS (2017 – 2022)



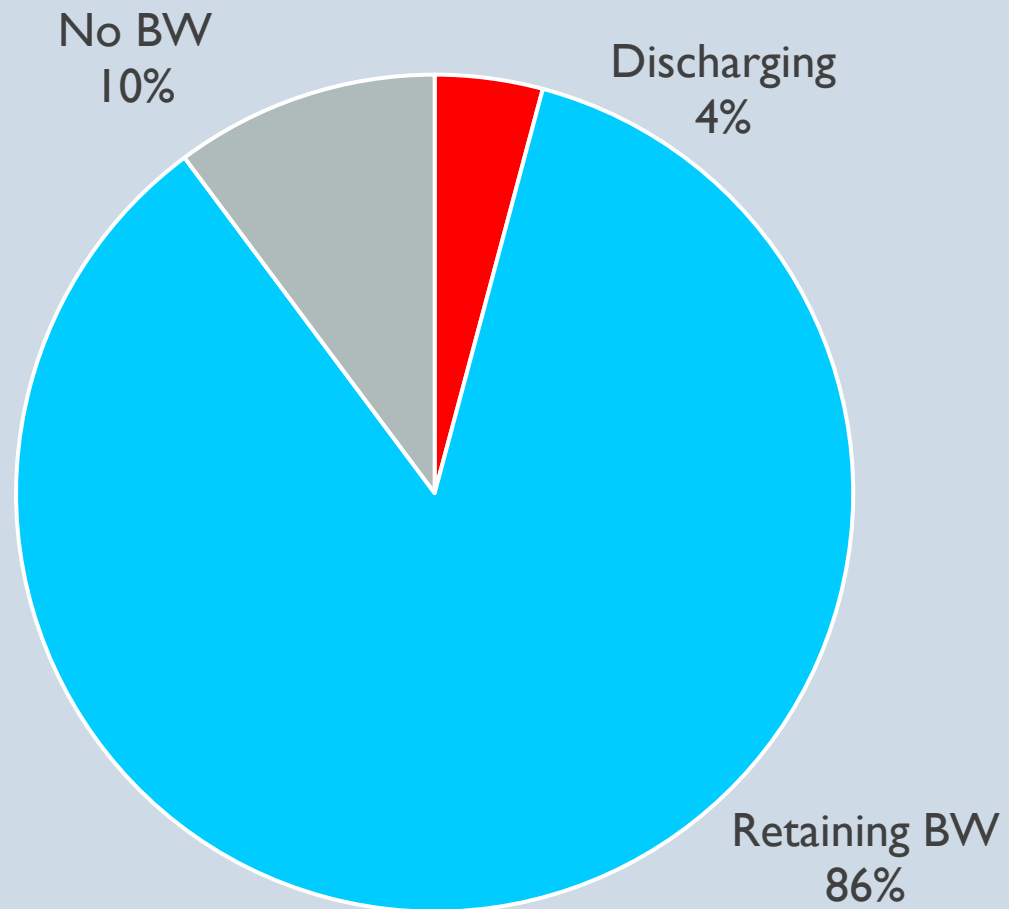
VESSEL ARRIVALS BY PORT (2022)





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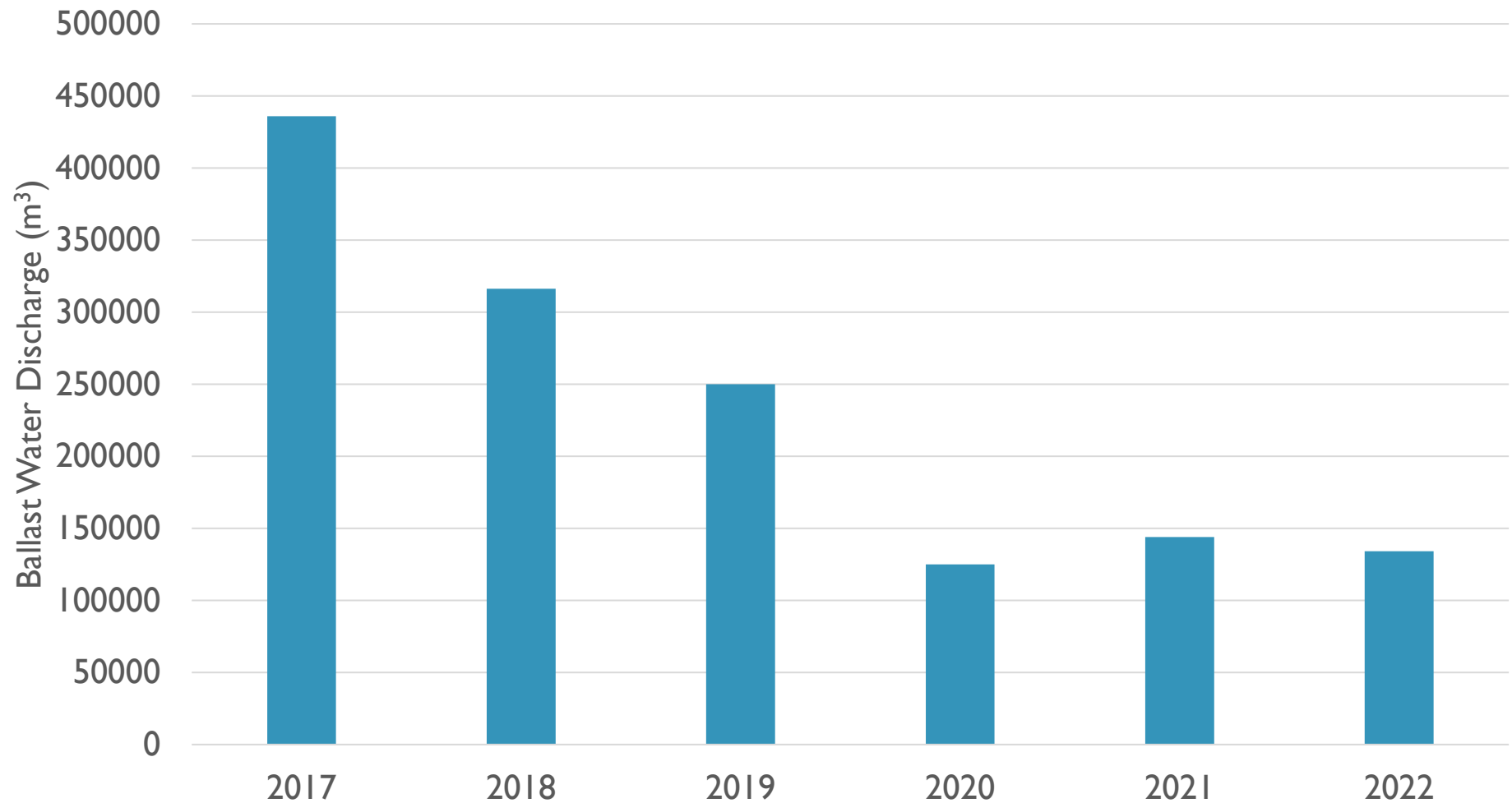
BW DISCHARGE (2022)





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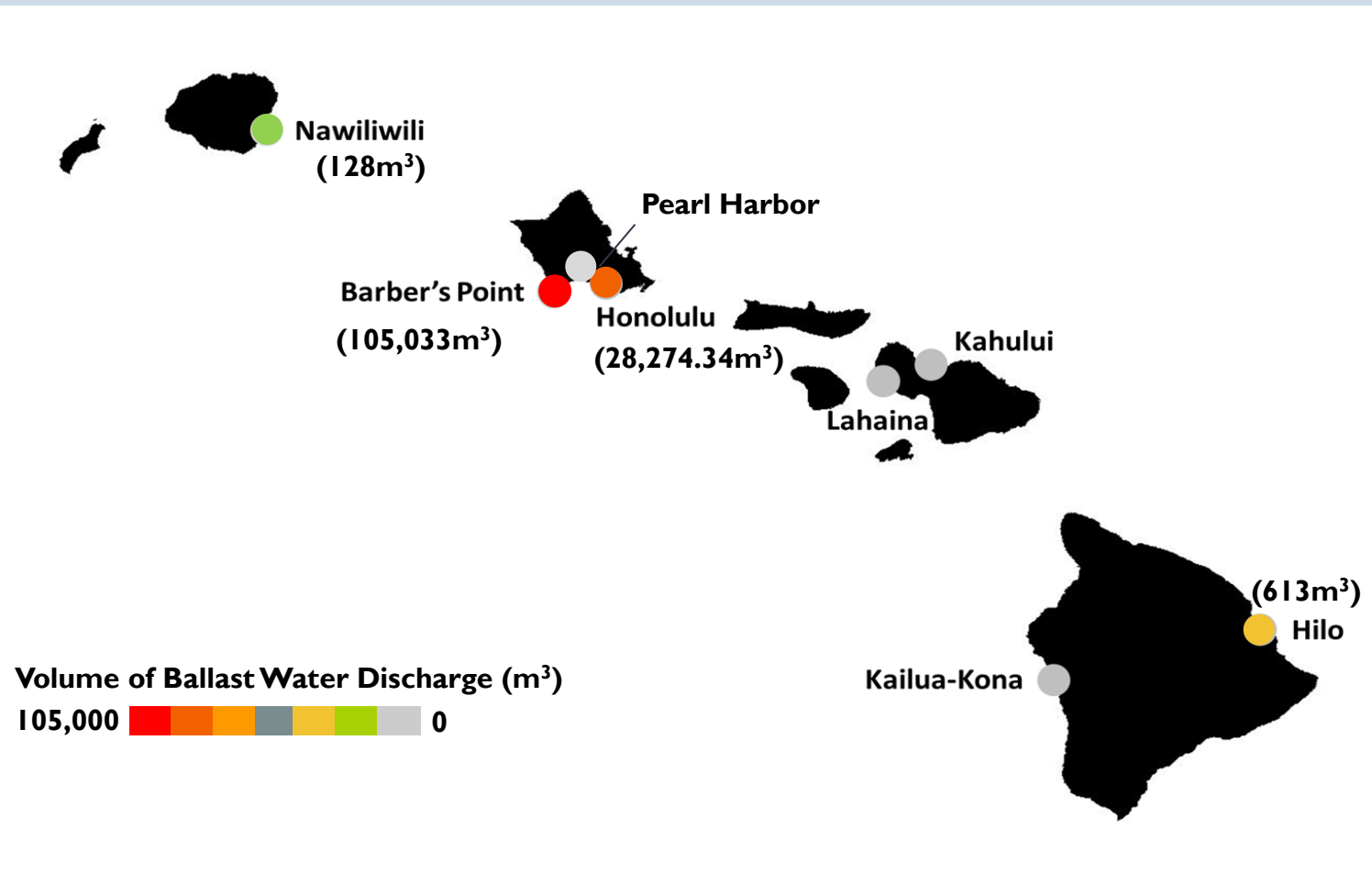
BW DISCHARGE (2017 – 2022)



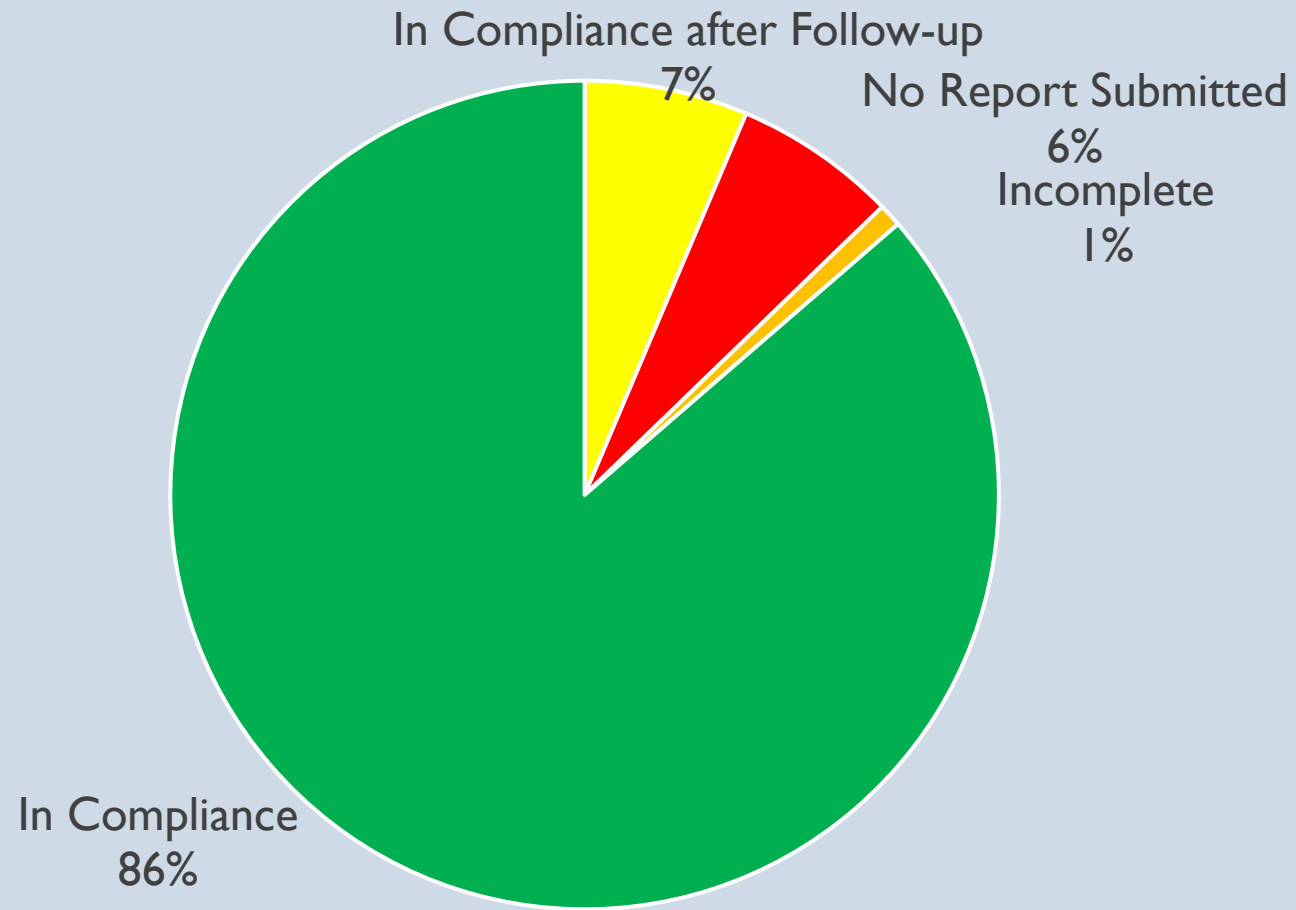


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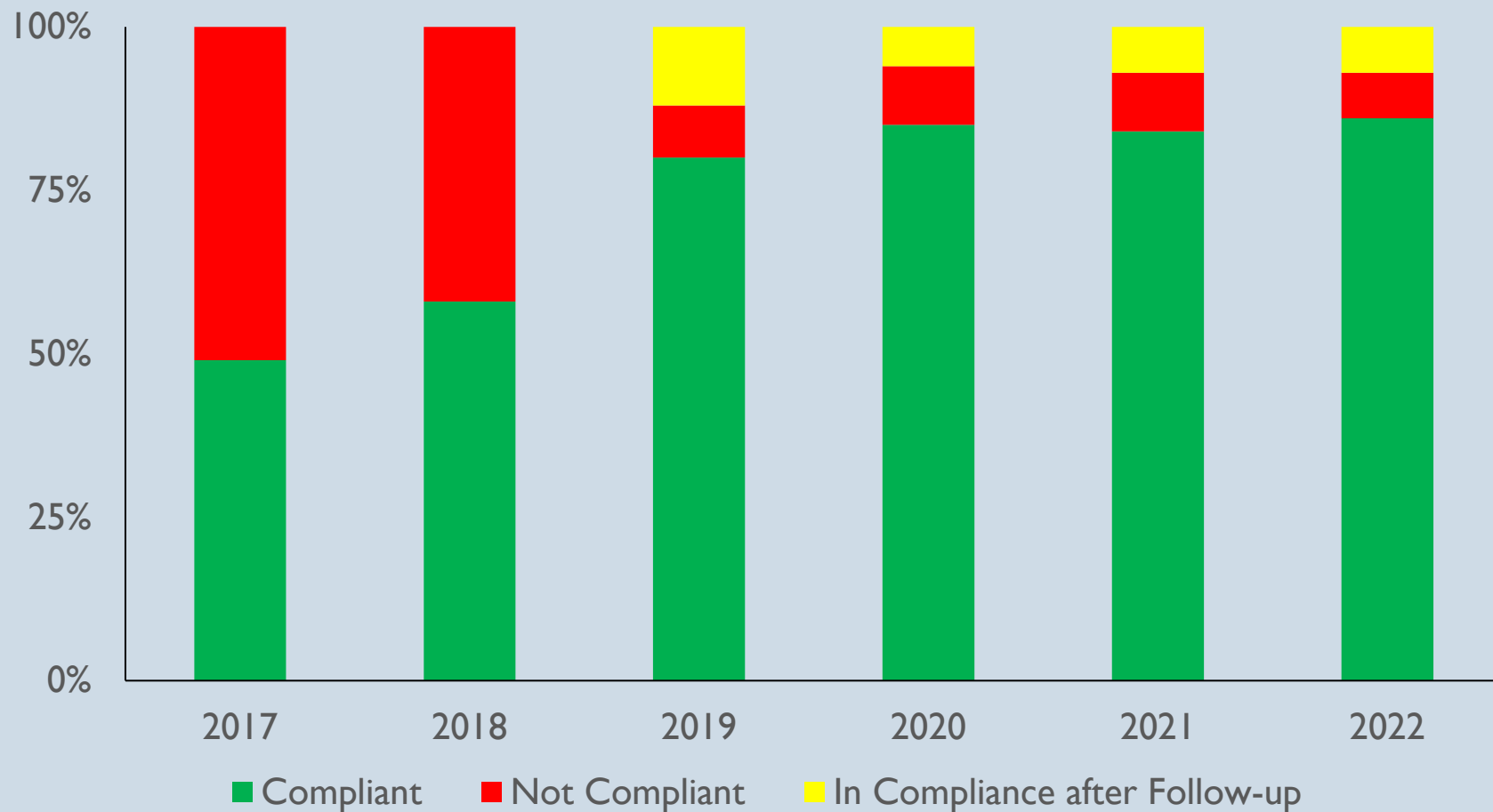
BW DISCHARGE BY PORT (2022)



VESSEL COMPLIANCE (2022)



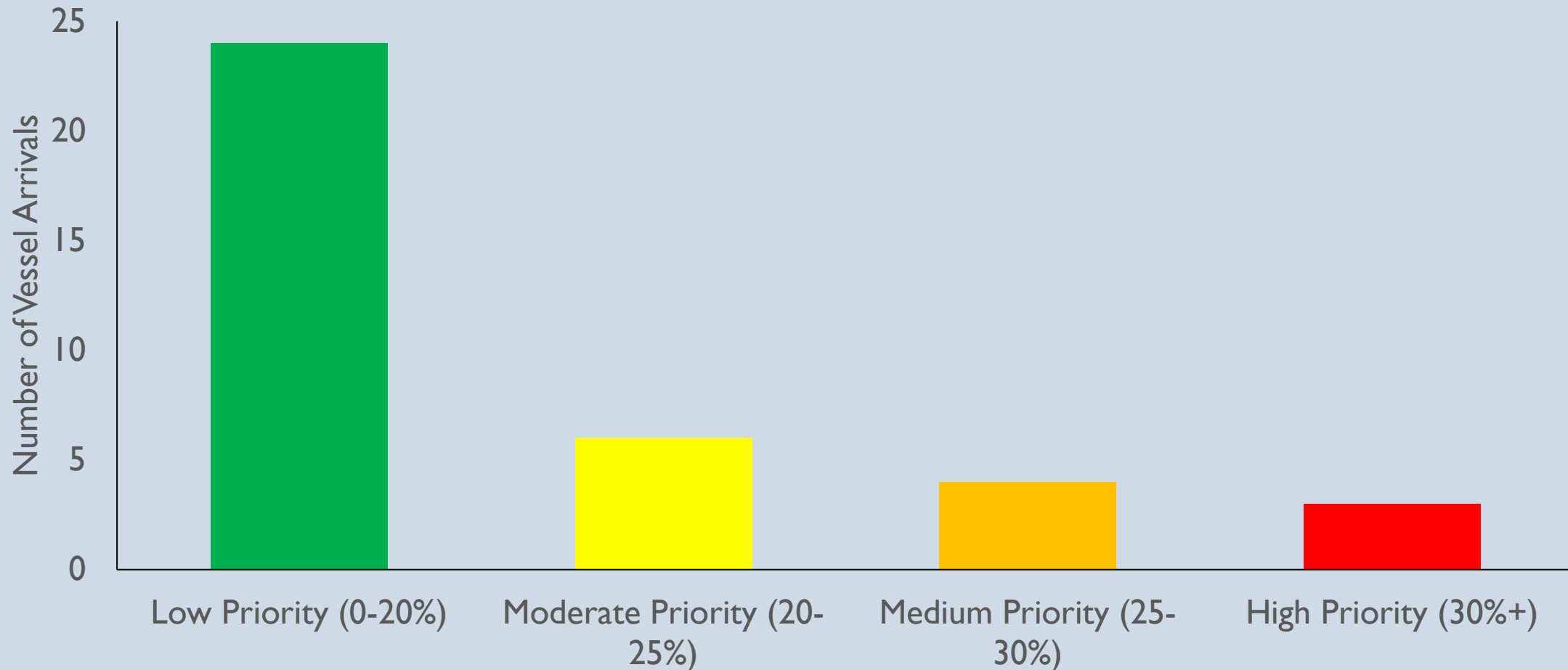
VESSEL COMPLIANCE (2017-2022)



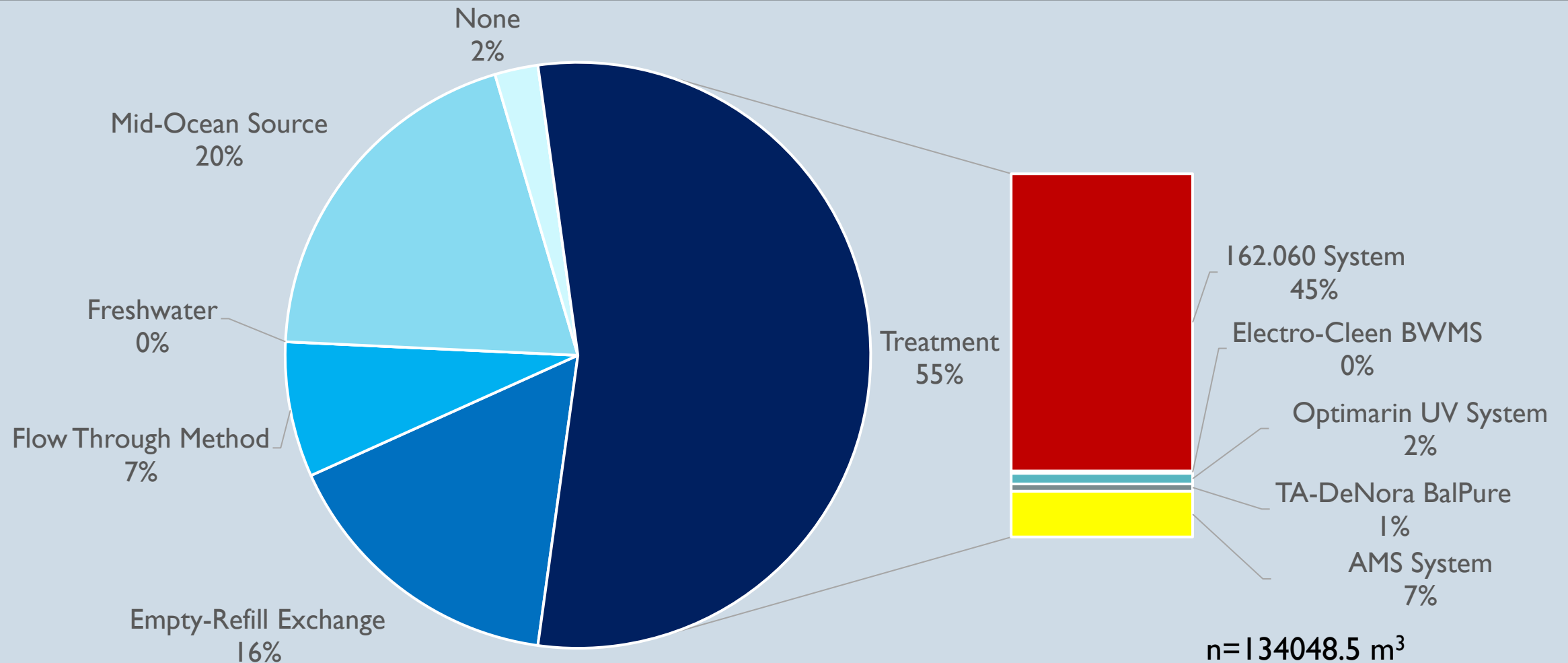
PRIORITY RISK MATRIX FOR DISCHARGING VESSELS (2022)

General Risk (max 20 Points)	Discharging Ballast
	Reporting Form Compliance
	"Flagged" Vessels

Risk Per Ballast Tank (4 points max per 20 tanks)	Management System
	Tank Volume <small>(Shapoori & Gholami, 2014)</small>
	Tank Storage Time <small>(Shapoori & Gholami, 2014)</small>
	Tank Water Source <small>(Davidson et al., 2014)</small>

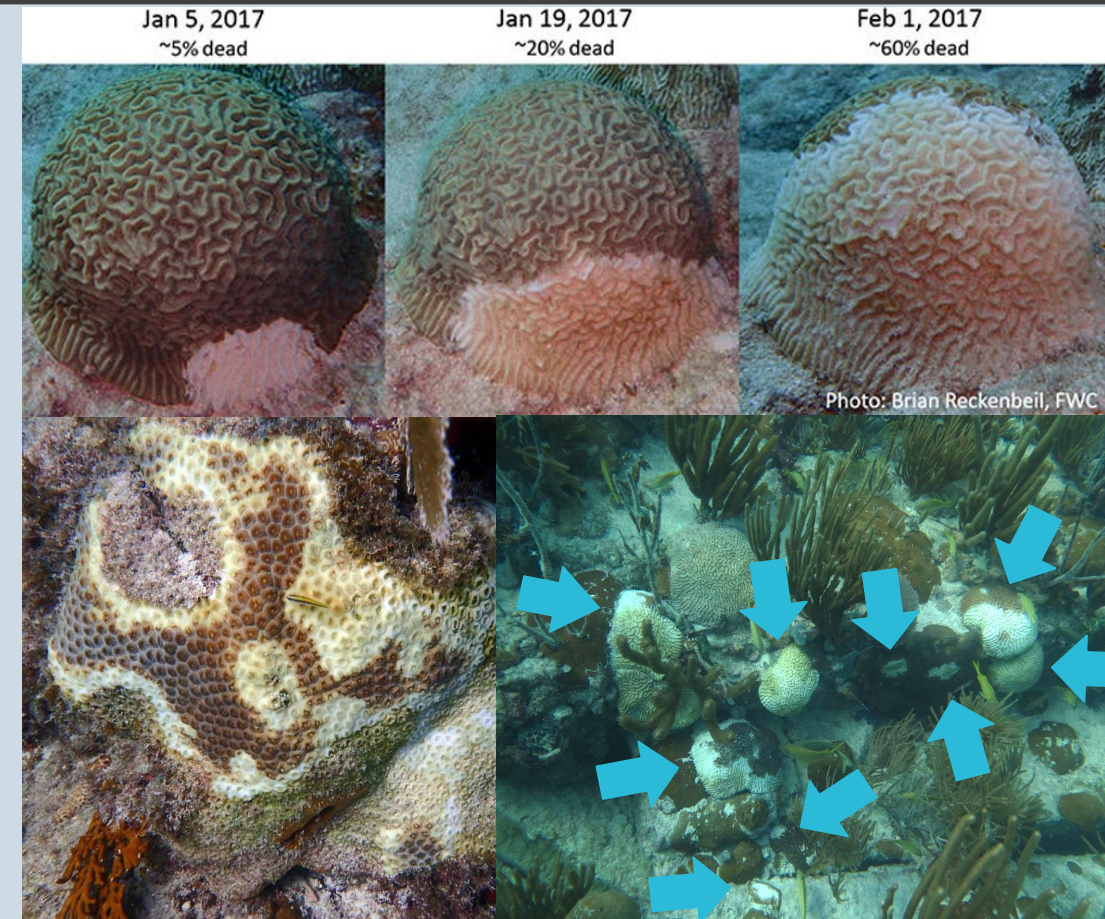


BALLAST WATER TREATMENT (2022)



STONY CORAL TISSUE LOSS DISEASE (SCTLD)

- Currently devastating Caribbean- rapid spread and high mortality across dozens of species
- Has been shown to travel via ballast water and is assumed to travel via biofouling communities – high risk to Hawai'i
- Formed SCTLD working groups, collaborated nationally and internationally to develop response plans, educated stakeholders, working to build capacity and surveillance



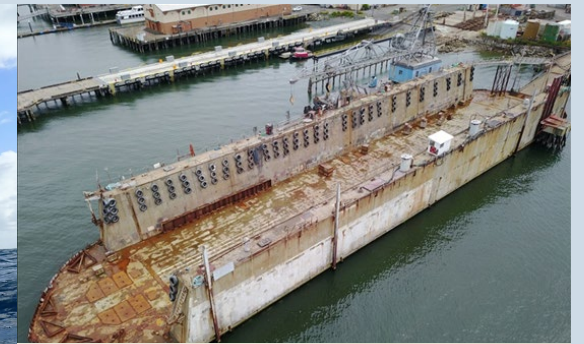
2022 ACCOMPLISHMENTS

- Collaborated on introducing new Hawai'i ballast water legislation
- Implemented quarterly data reports on our website
- Hired new BWBF Planning Associate
- Received funding from the USFWS, Hawai'i Invasive Species Council and the REPI Challenge



2022 CHALLENGES

- Capacity issues – only one civil service staff, one contract staff and one temp intern
- Building Hawai'i's Ballast Water program under VIDA
- Addressing new invasive species threats and introductions



2023 PRIORITIES FOR HAWAI'I REGULATION

- Hawai'i HB755/SB468 would:
 - Grant DLNR authority to regulate incidental discharges other than BW/BF
 - Allow Hawai'i to mirror VIDA regulations
- Emergency rule to help prevent SCTLD introduction via ballast water
- More civil service staff – build an inspection team



OTHER 2023 PRIORITIES

- Introduce eDNA as a monitoring tool for the AIS Team
- Create contract position of Rapid Response Coordinator for coral disease, bleaching, and other response needs
- Continue collaboration on SCTLD prevention and preparedness
- Continue data collaboration with other state ballast water programs



CONTACT US



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