

California's Marine Invasive Species Program

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MARINE INVASIVE SPECIES PROGRAM

MARINE ENVIRONMENTAL PROTECTION DIVISION

CALIFORNIA STATE LANDS COMMISSION

APRIL 2, 2019



Topics of Discussion

2019 Biennial Report

2018 Vessel Arrivals Statistics

2018 BW Treatment Technology Report

Next Steps



2019 BIENNIAL REPORT

2019 BIENNIAL REPORT
ON THE
CALIFORNIA
MARINE INVASIVE SPECIES PROGRAM



PRODUCED FOR THE
CALIFORNIA STATE LEGISLATURE

By
C. Scianni, L. Ceballos Osuna, N. Dobroski,
M. Falkner, J. Thompson, and R. Nedelcheva

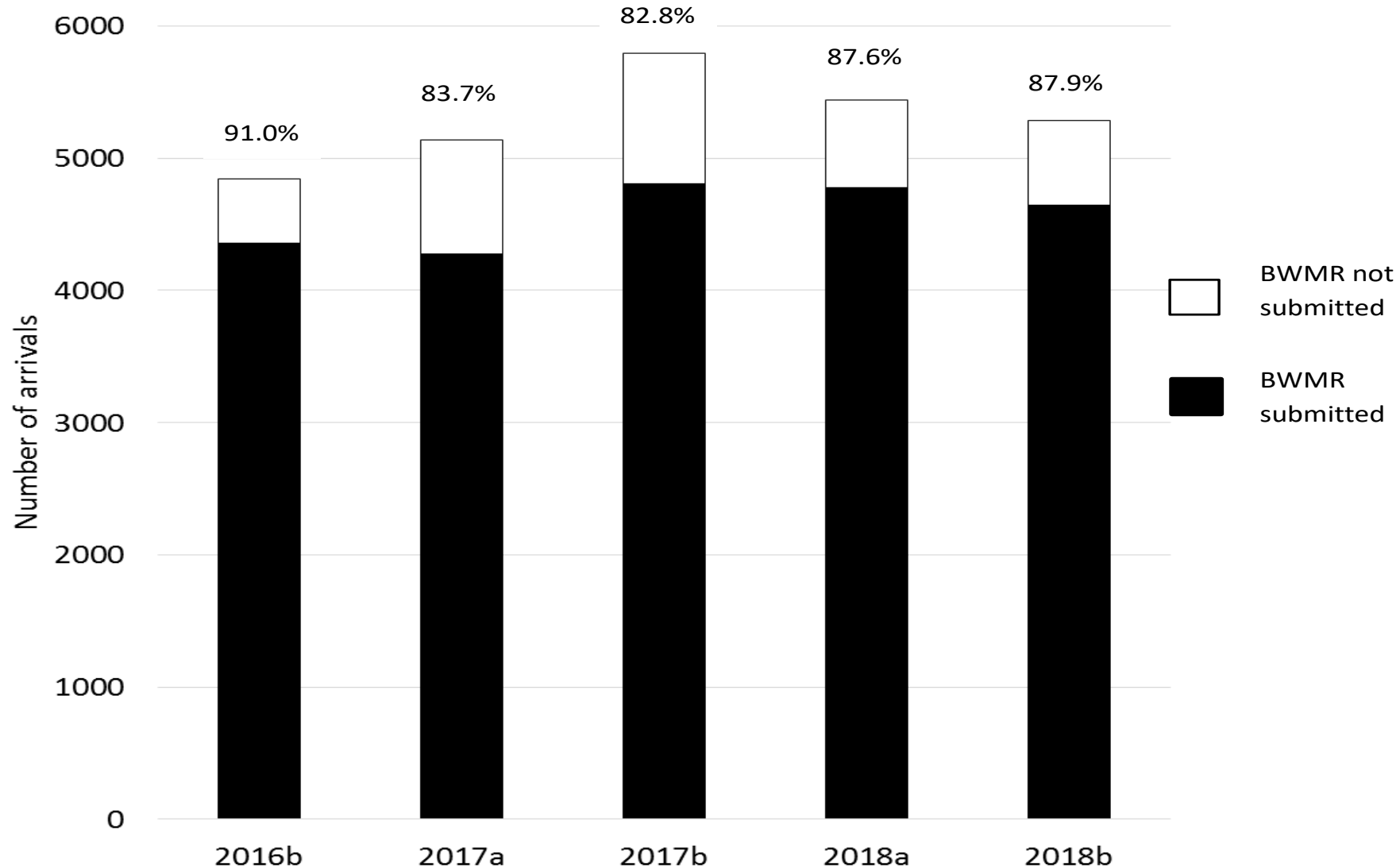


California State Lands Commission
Marine Environmental Protection Division
February 2019

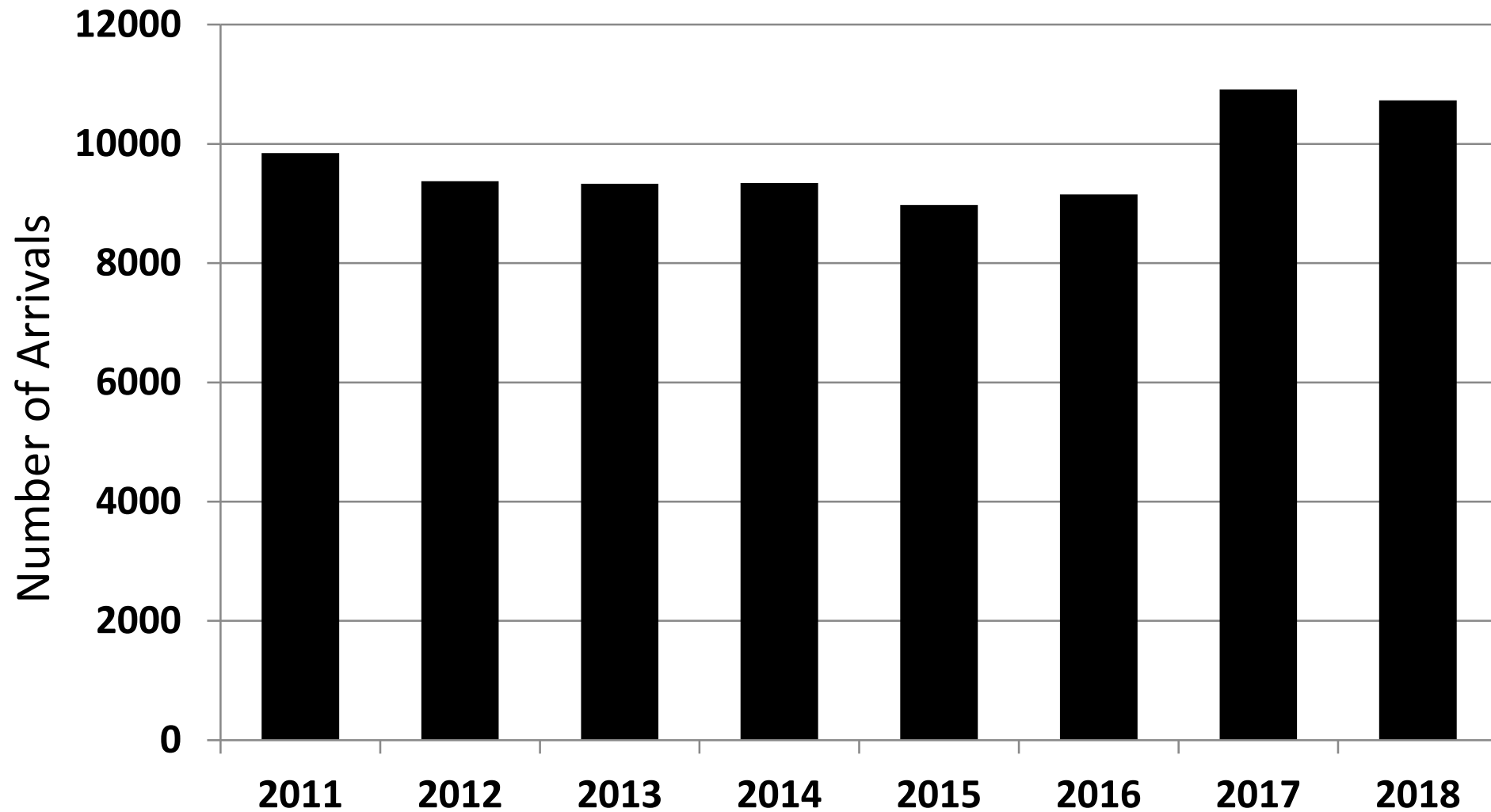
- Provide an update to the Legislature, as required by Public Resources Code sections 71210 and 71212
- Report includes:
 - Updates on MISP activities
 - Summary of vessel-reported data
 - Summary of inspection data
 - Summary of recent research



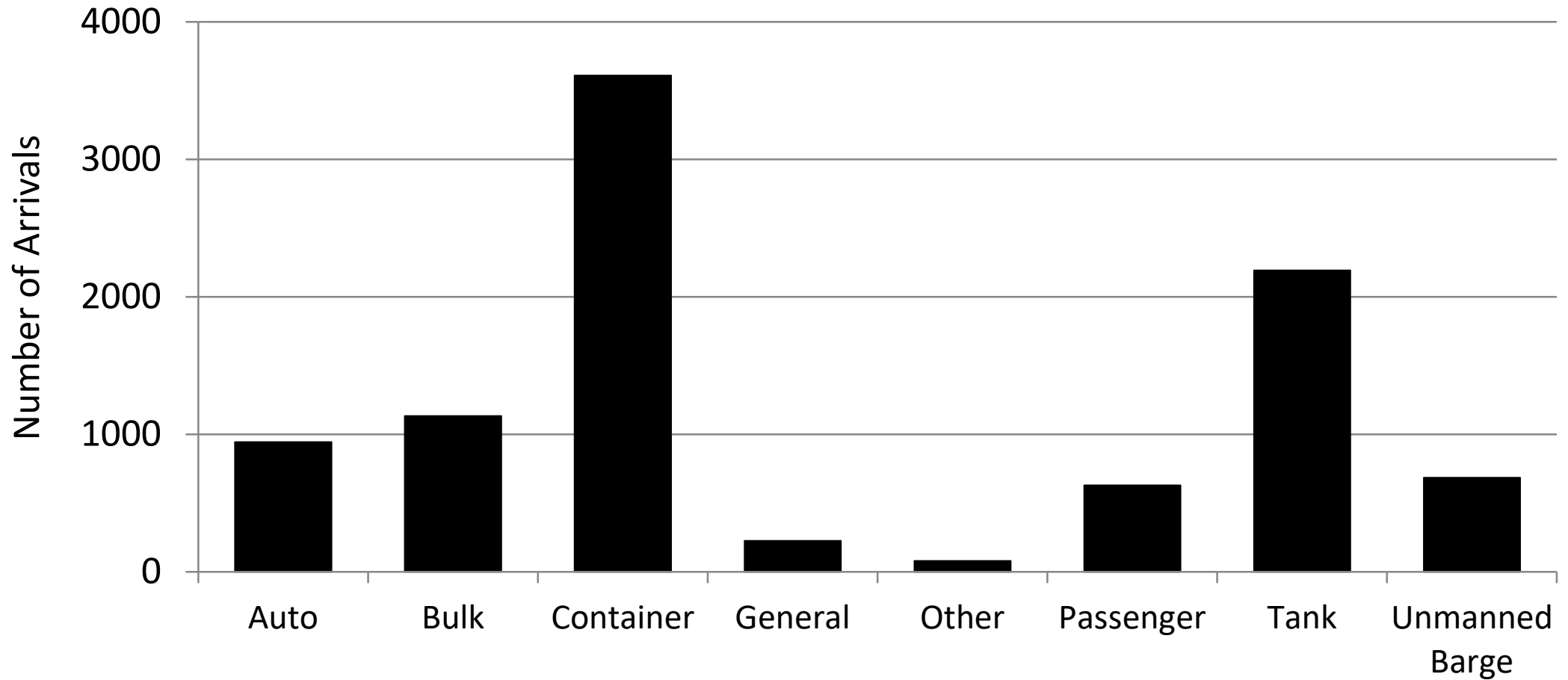
BWMR Submission Compliance



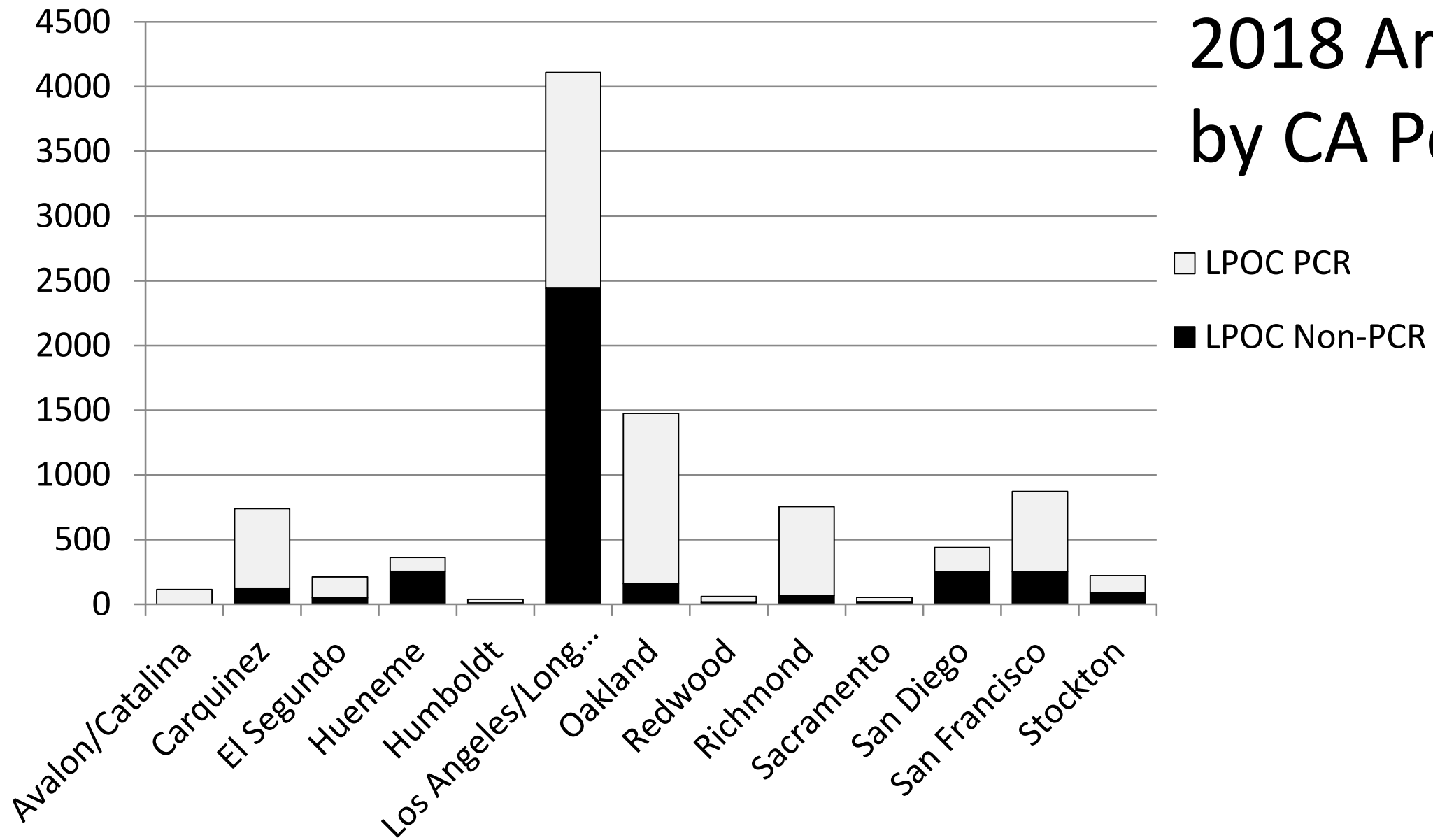
Vessel Arrivals by Year



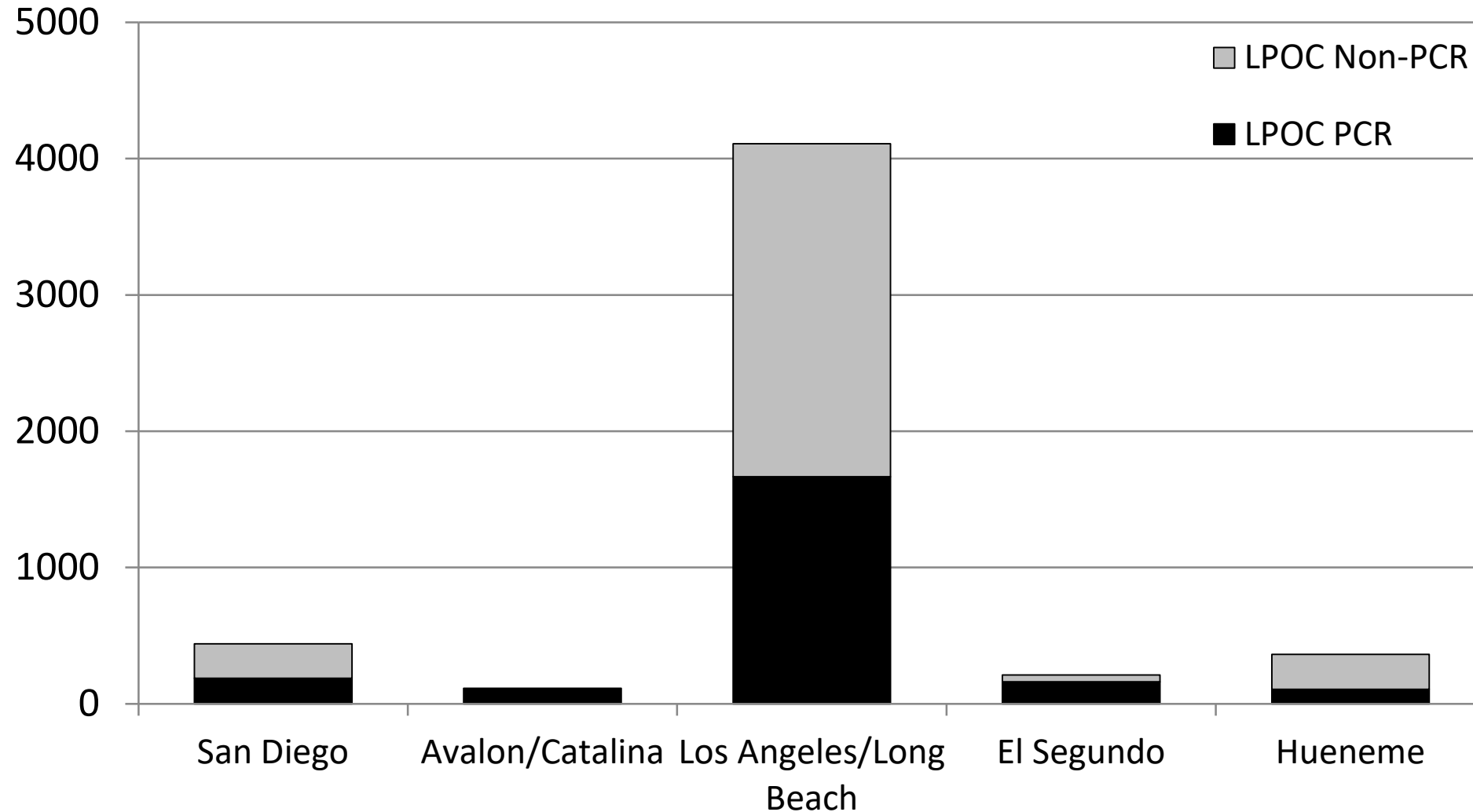
2018 Arrivals by Vessel Type



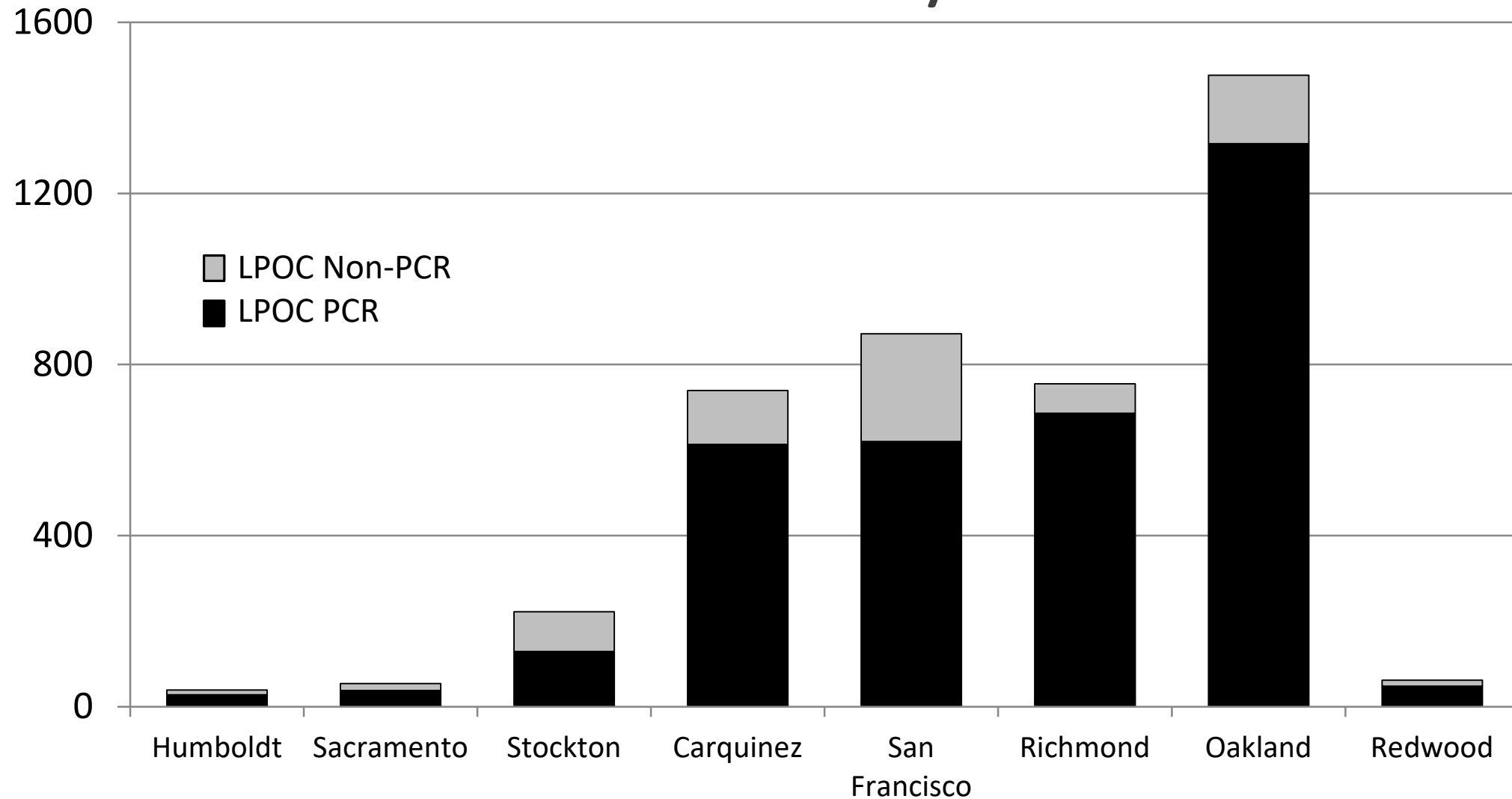
2018 Arrivals by CA Port



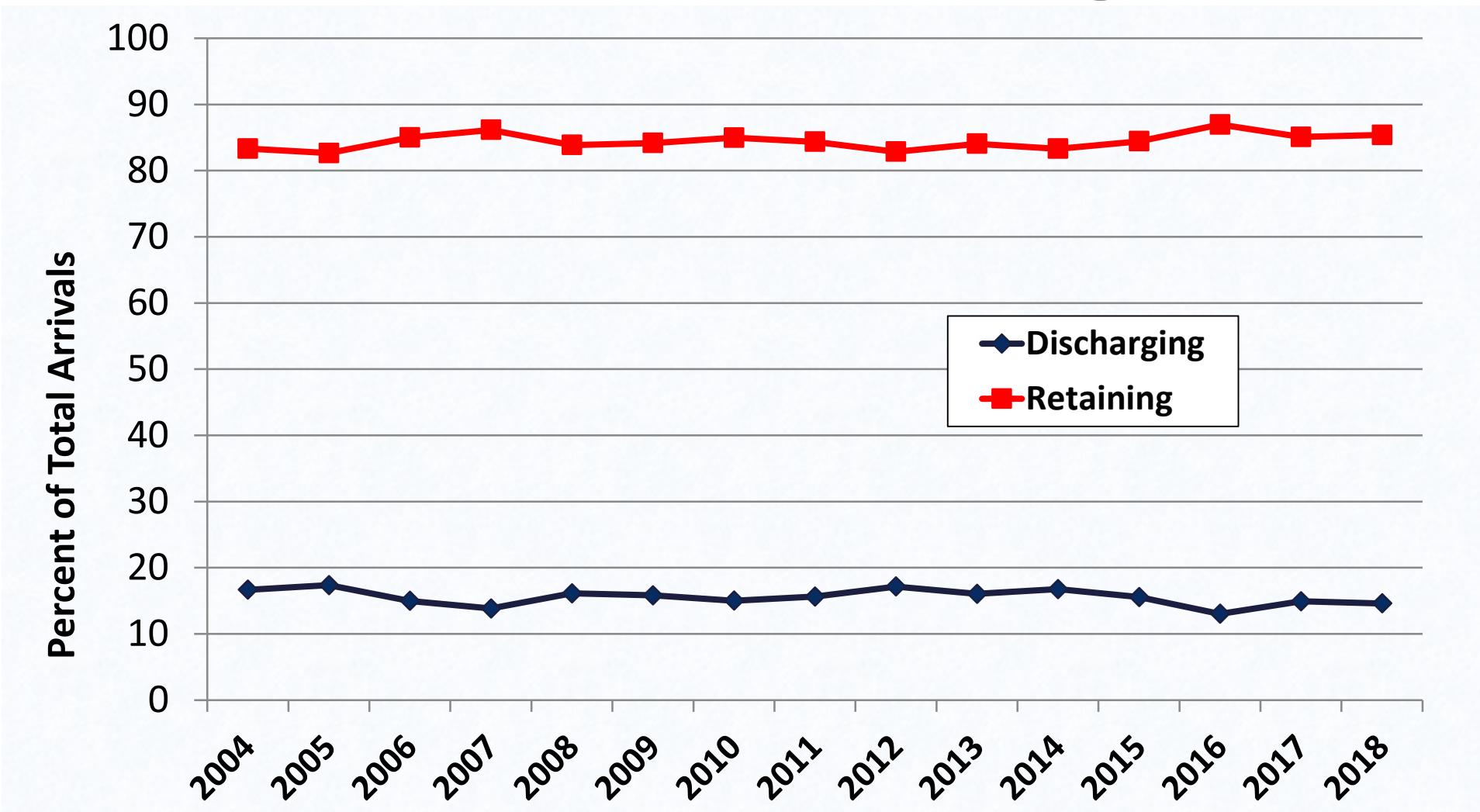
2018 Arrivals by S. CA Port



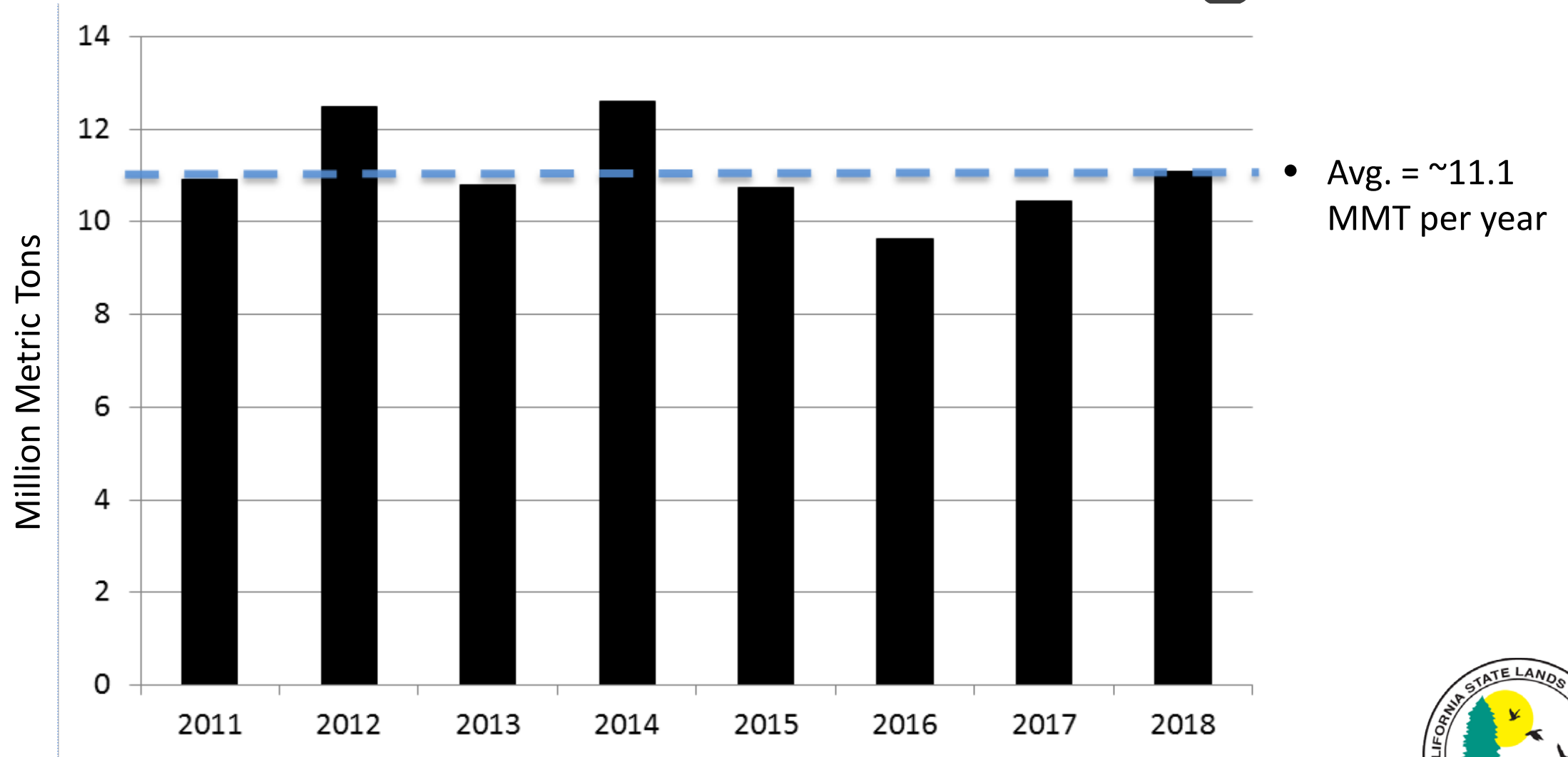
2018 Arrivals by N. CA Port



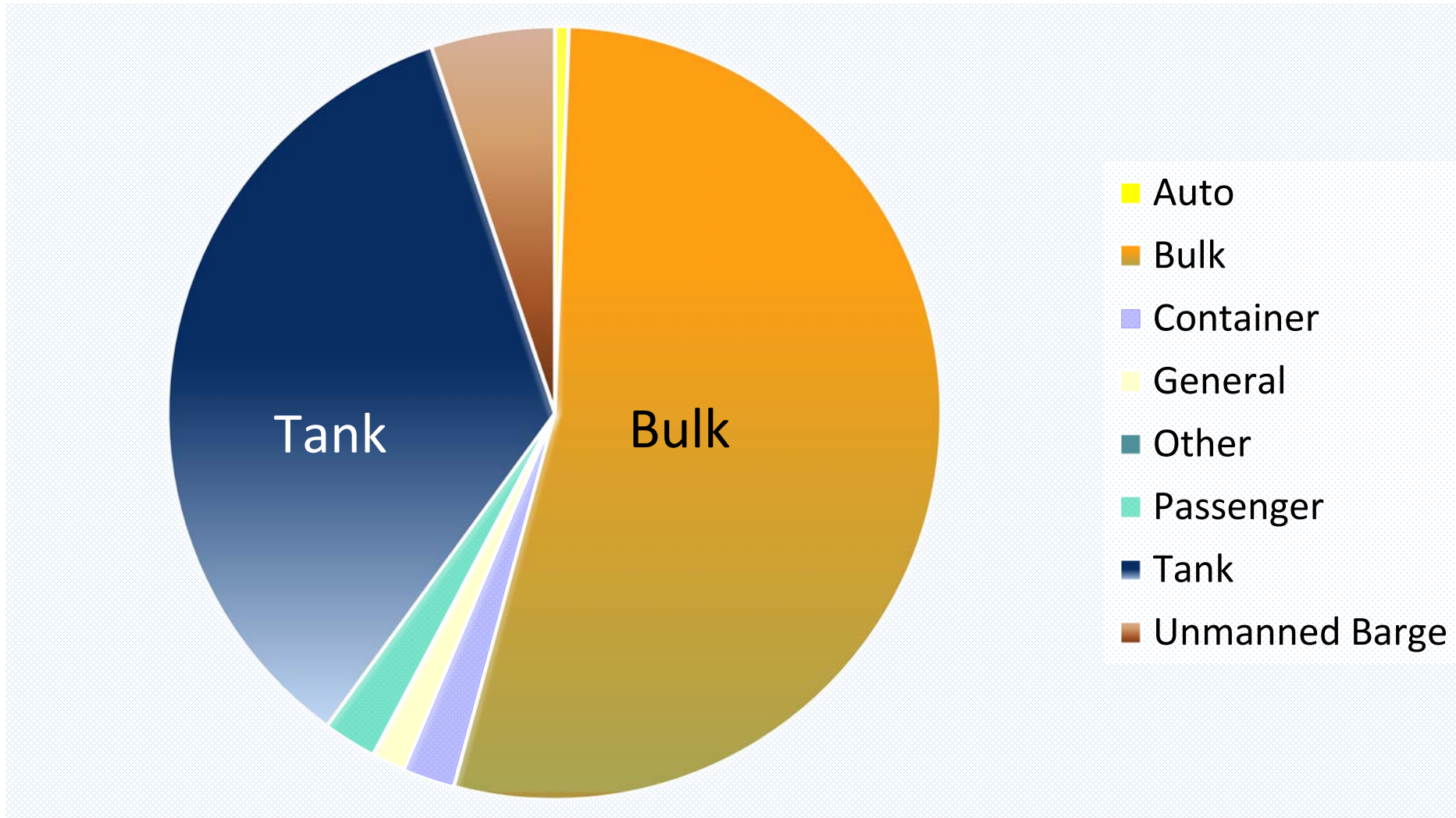
Ballast Water Management

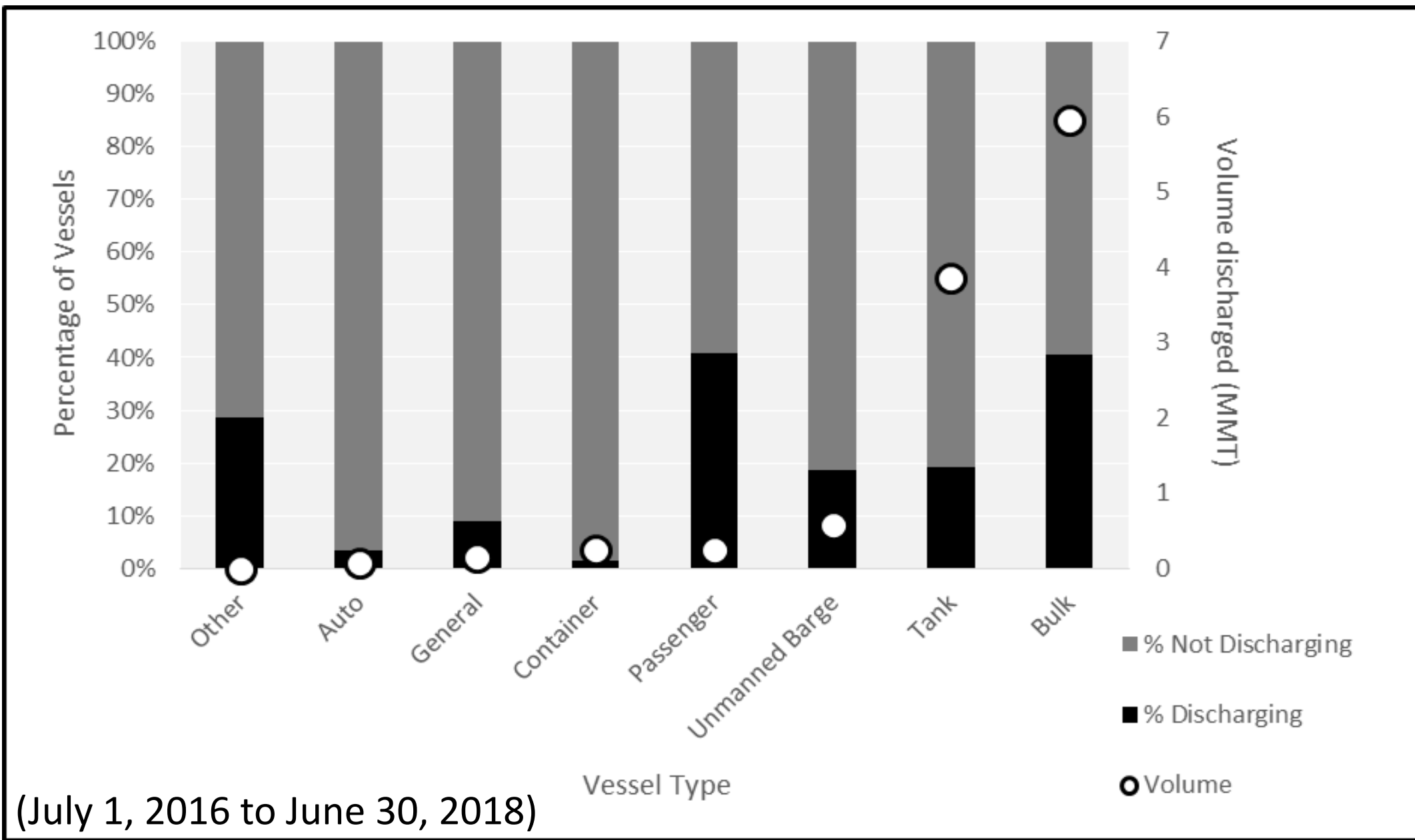


Ballast Water Discharge

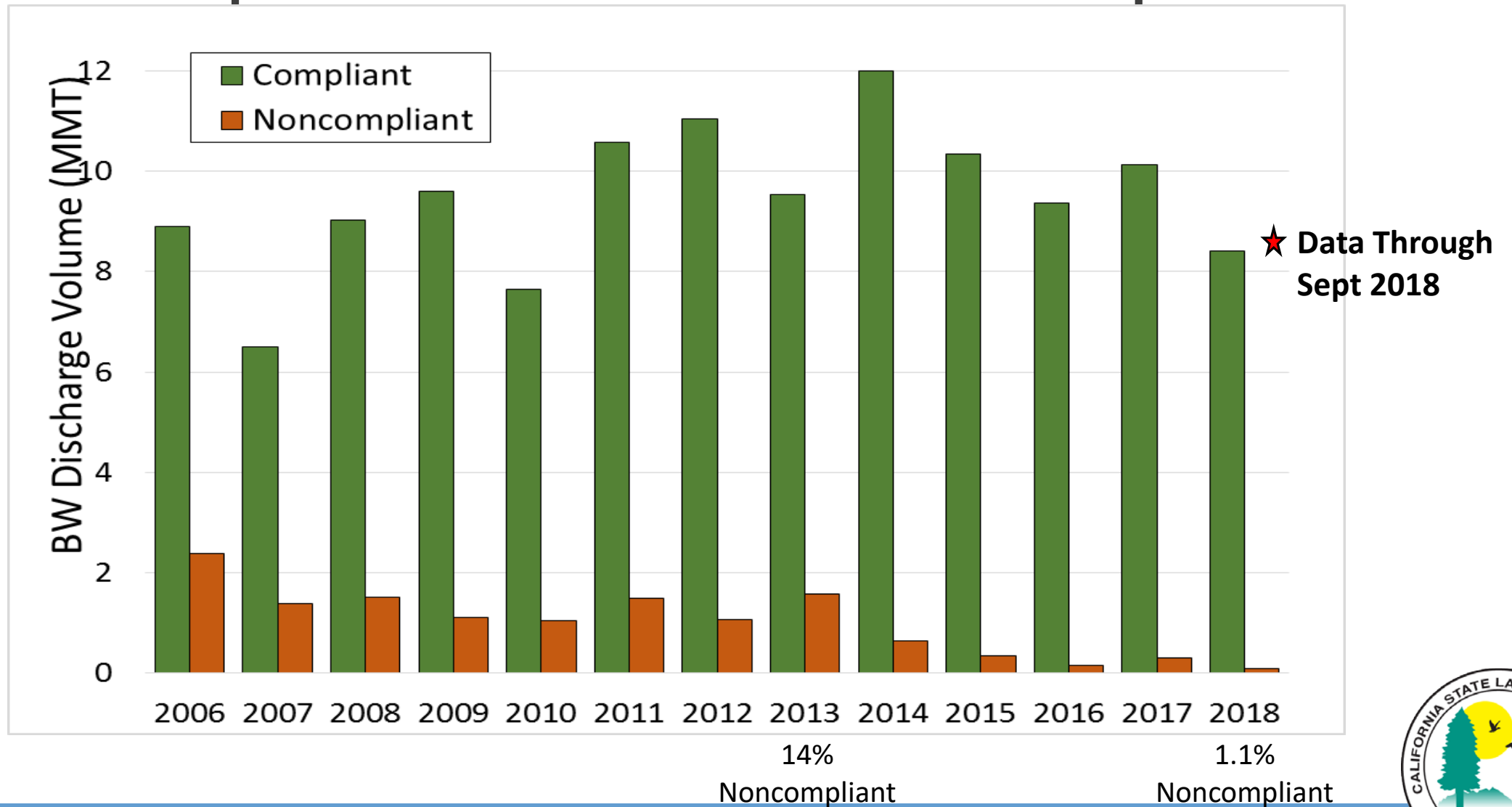


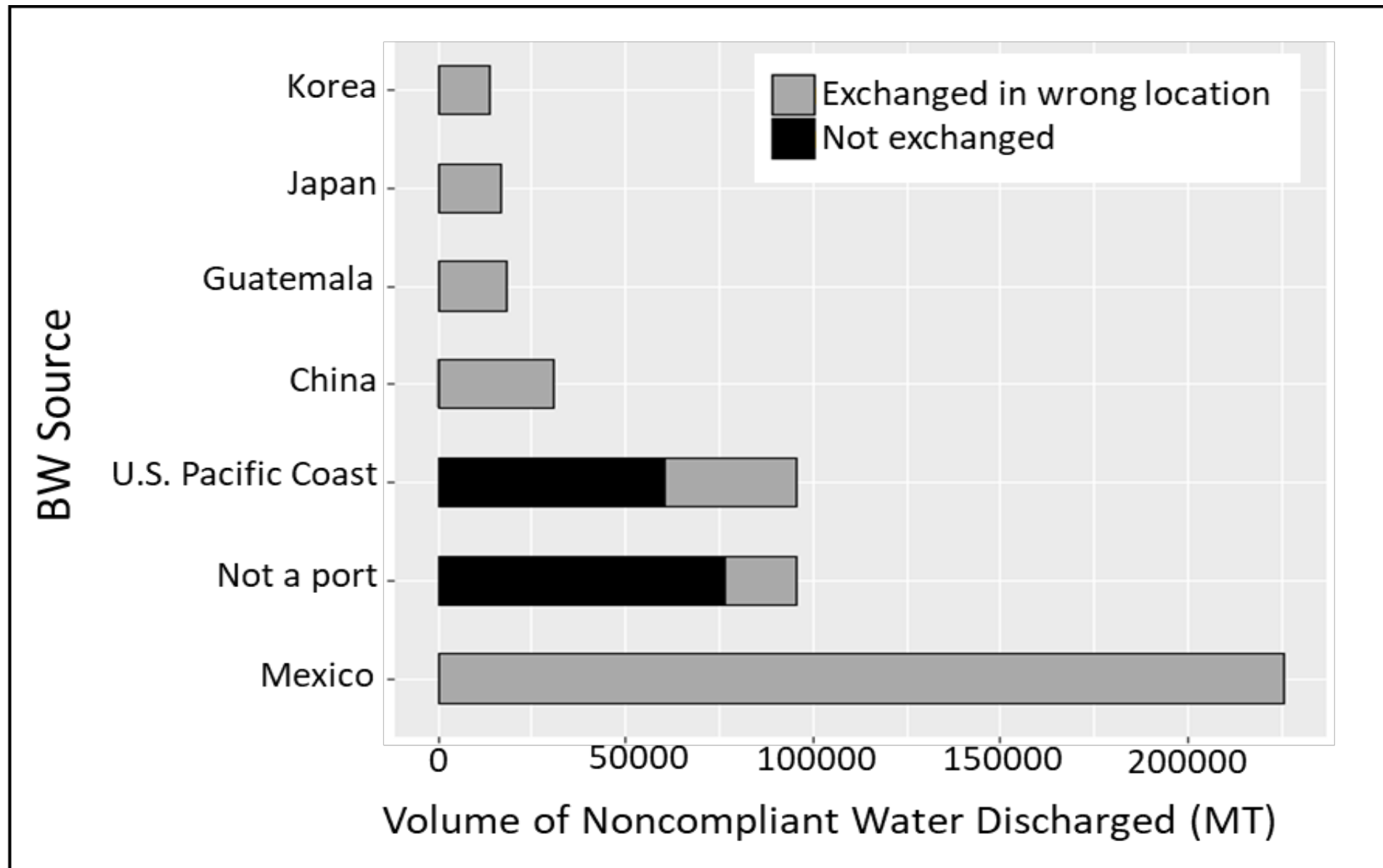
2018 Discharge by Vessel Type





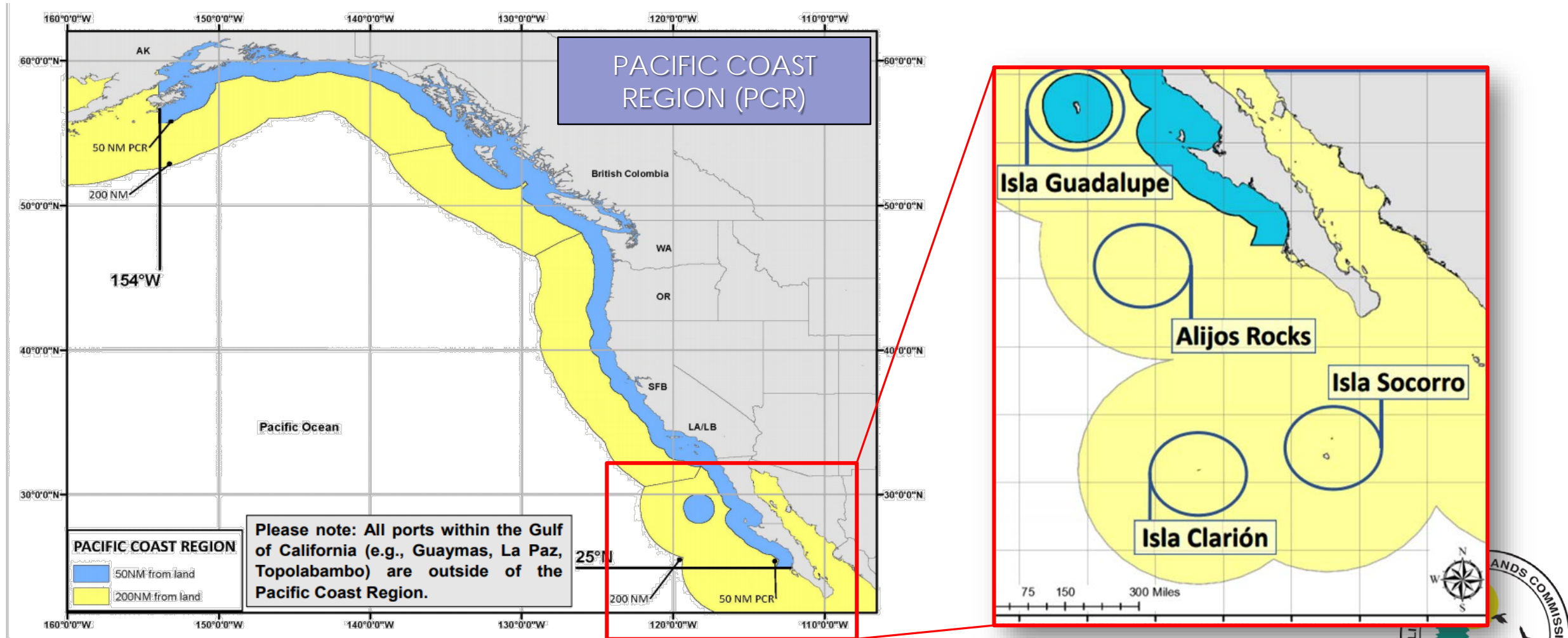
Compliant vs. Noncompliant





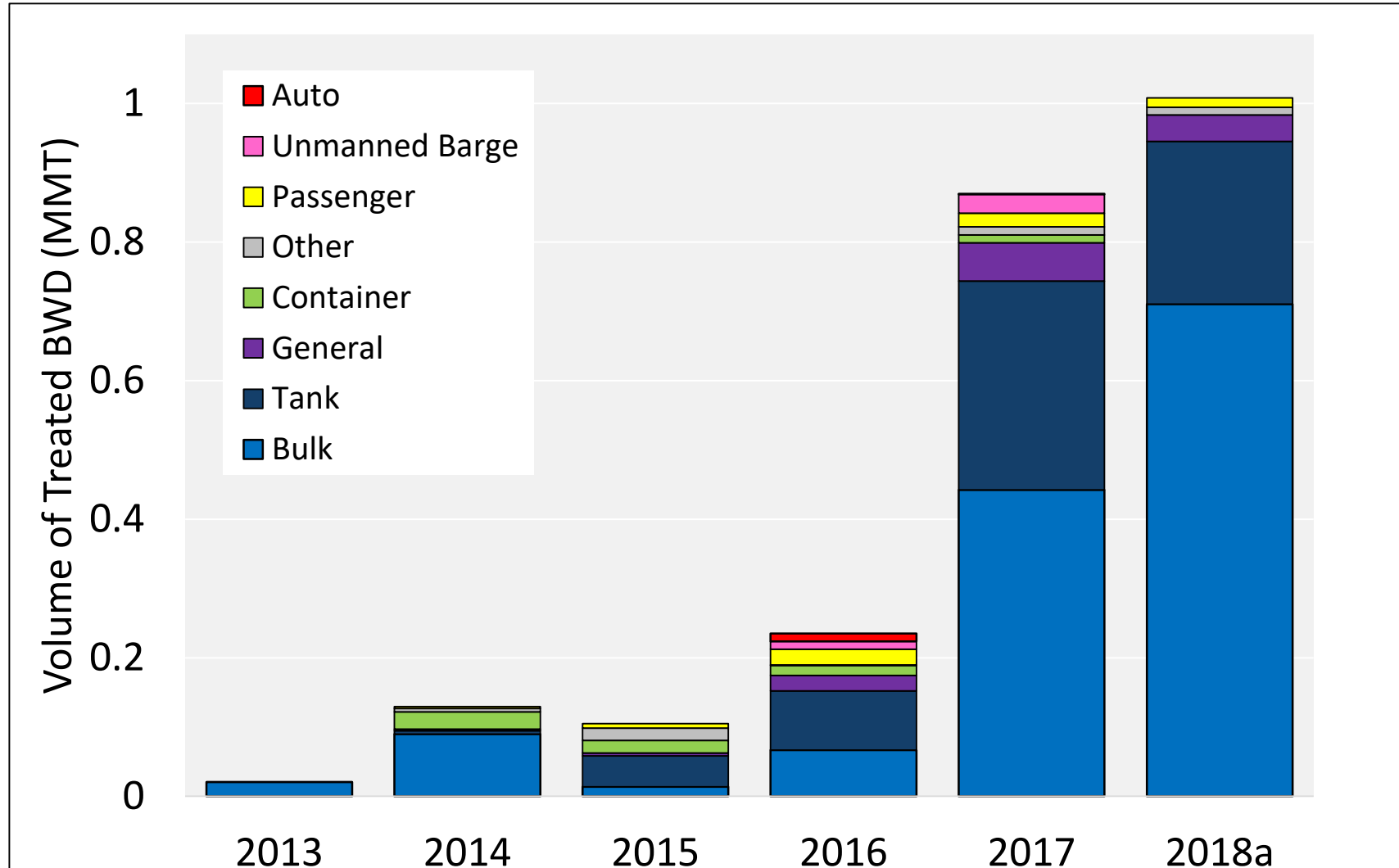
(July 1, 2016 to June 30, 2018)

Ballast Water Exchange: Islands are Land

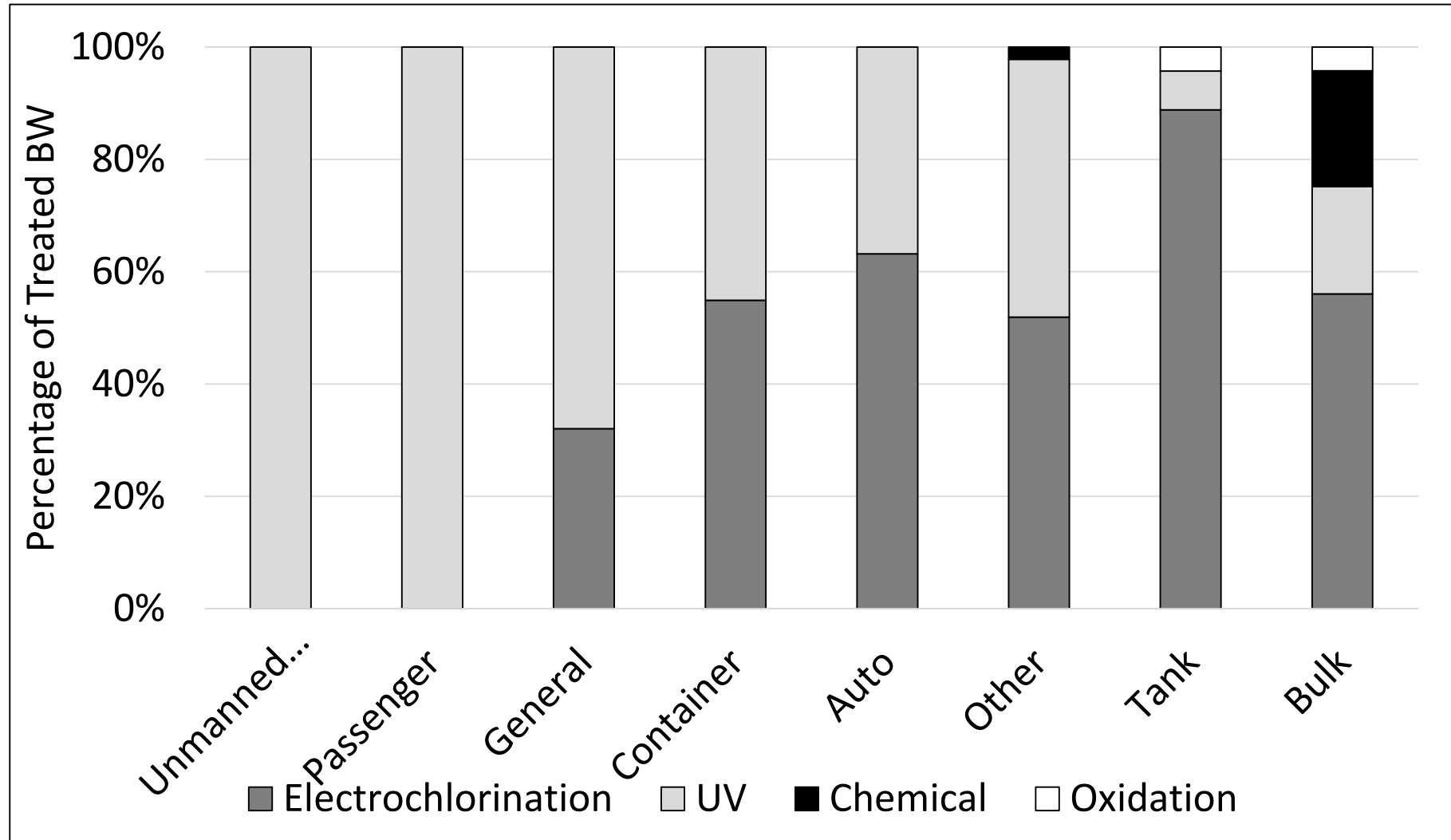


(July 1, 2016 to June 30, 2018)

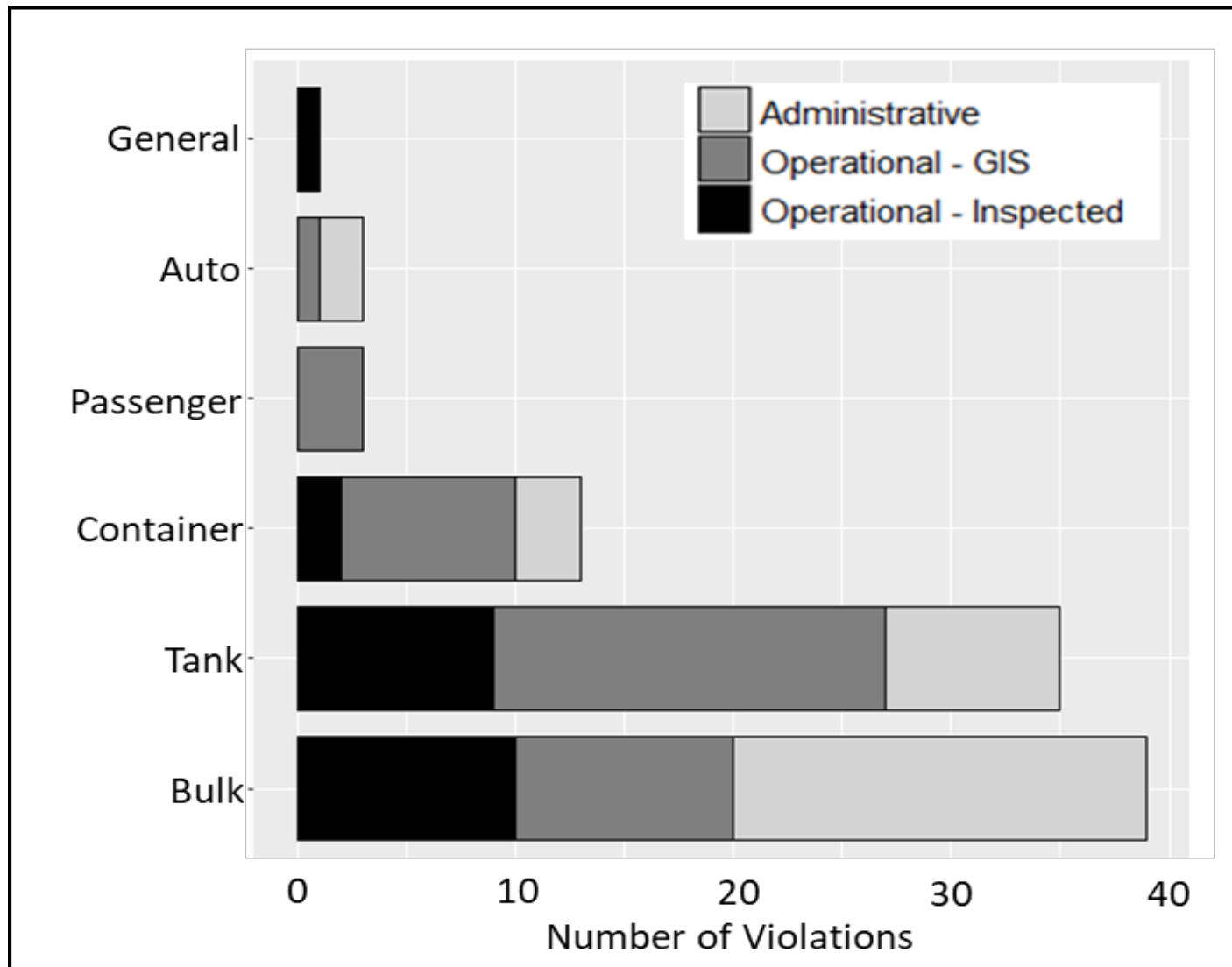
Discharge of Treated Ballast



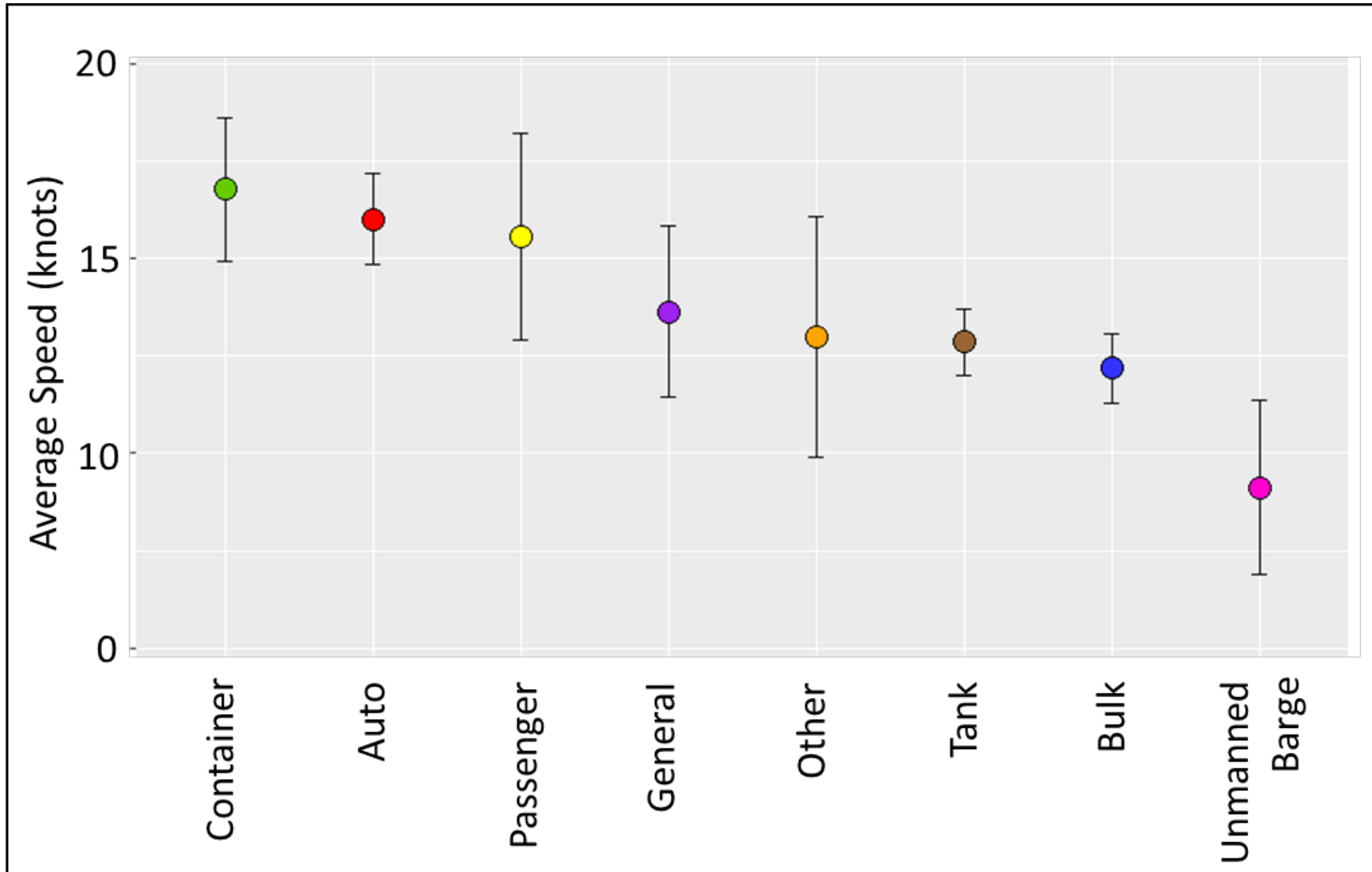
Discharge by Treatment Method



Violations (July 1, 2016 to June 30, 2018)



Vessel Speed Patterns



Data reported
2016 and 2017



2018 BW TREATMENT TECHNOLOGY ASSESSMENT REPORT

2018 Assessment of the Efficacy, Availability, and
Environmental Impacts of Ballast Water Treatment
Technologies for Use in California Waters

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California State Lands Commission

December 2018

- Assess efficacy, availability, and environmental impacts of BW treatment technologies to meet California Performance Standards



Shore-Based Feasibility Study

Practicality

- A barge-based network could service 1,556 annual ballast water.
- Existing technology should be able to meet the CA Interim Standard, but requires prototyping and pilot projects.

Cost

- \$3.52 billion life cycle cost over 30 year period
- Mostly borne directly by shipping industry, but barge network requires \$552 million investment

Impacts

- Primary impact on discretionary cargo, cargo exports, and remote and small ports
- Harbor craft emissions to increase by 2.6% to 5.1%

Schedule

- Nine years for implementation



2018 Report Findings

- No ballast water treatment technologies available to meet California Performance Standards
- Shipboard ballast water management systems
 - Systems did not meet the standards
- Ballast water exchange plus treatment
 - Not enough data
- Shore-based reception and treatment facilities
 - None available in U.S.
 - Shore-based feasibility study



Recommendations to the Legislature

Develop legislation to delay or change California's performance standards or consider other ways to prevent NIS introductions

- Consider requiring all vessels that use a ballast water management system to also conduct ballast water exchange prior to discharge in California waters

Authorize the Commission to sample ballast water and biofouling for research purposes

Prepare a new analysis of ballast water discharge standards for Legislature



What Else Are We Working On?

Amendments to enforcement regulations (Article 4.9)

- Incorporate biofouling management regulations

Finalize and implement combined ballast water and biofouling weighted risk assessment using vessel-submitted forms

- Stayed tuned for Lina's talk later today

Assessment of efficacy of BWE + BWT

- Stay tuned for Jonathan's talk tomorrow

Amendments to the MISA

Publications



Thank you!

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