

# California's Marine Invasive Species Program

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MARINE INVASIVE SPECIES PROGRAM

MARINE ENVIRONMENTAL PROTECTION DIVISION

CALIFORNIA STATE LANDS COMMISSION

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# Topics of Discussion

2017 Biennial Report

New and Proposed Regulations

Research

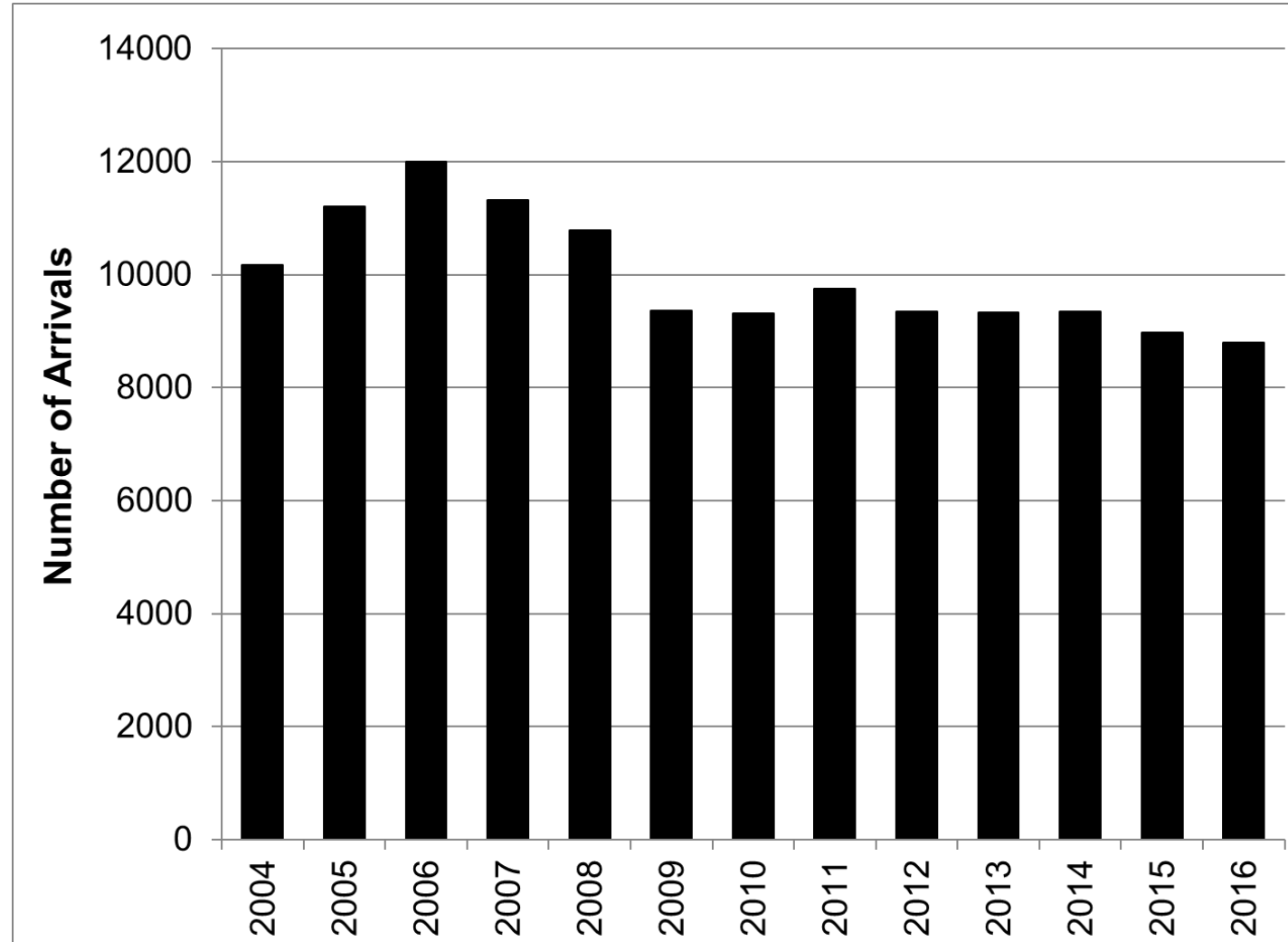
Modernization and Efficiency Efforts



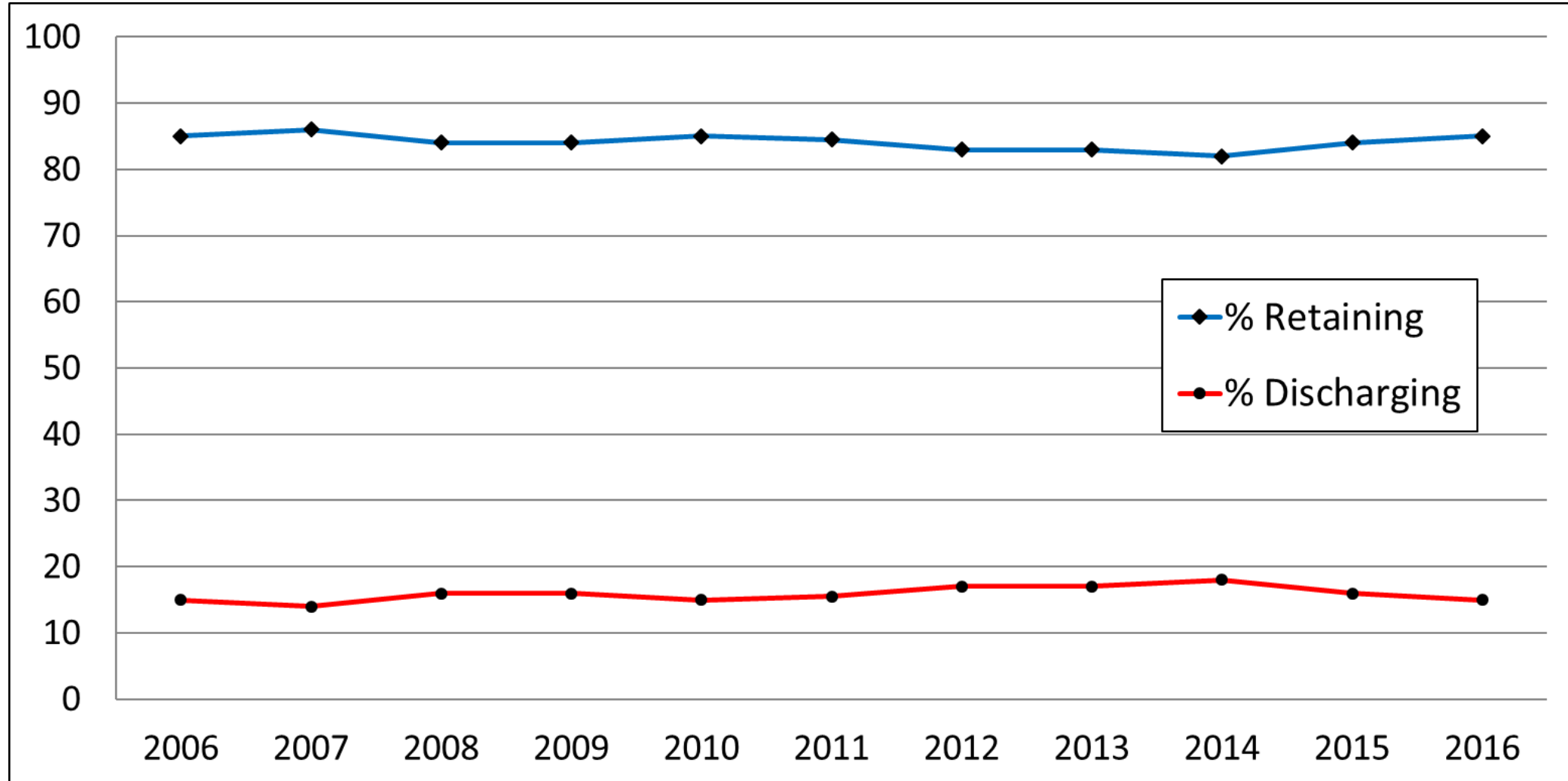
# 2017 Biennial Report



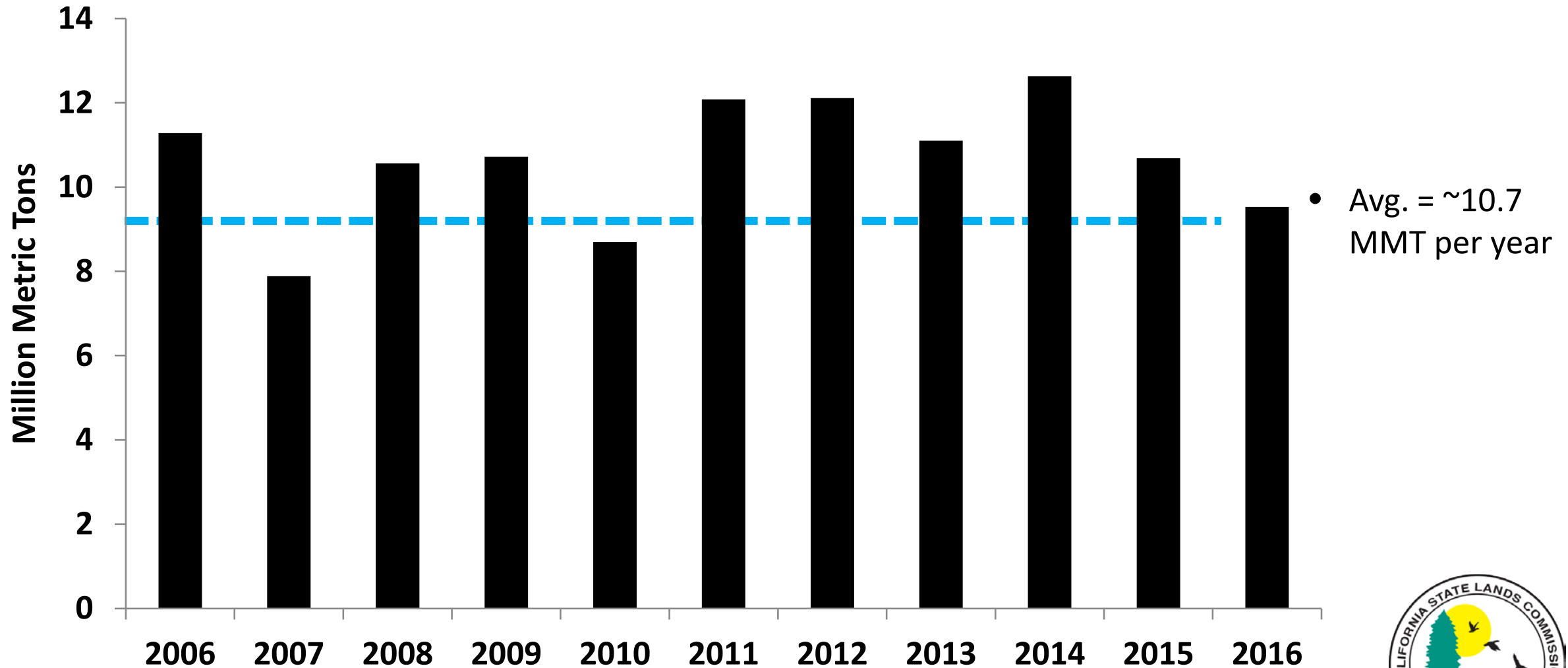
# Vessel Arrivals at CA Ports



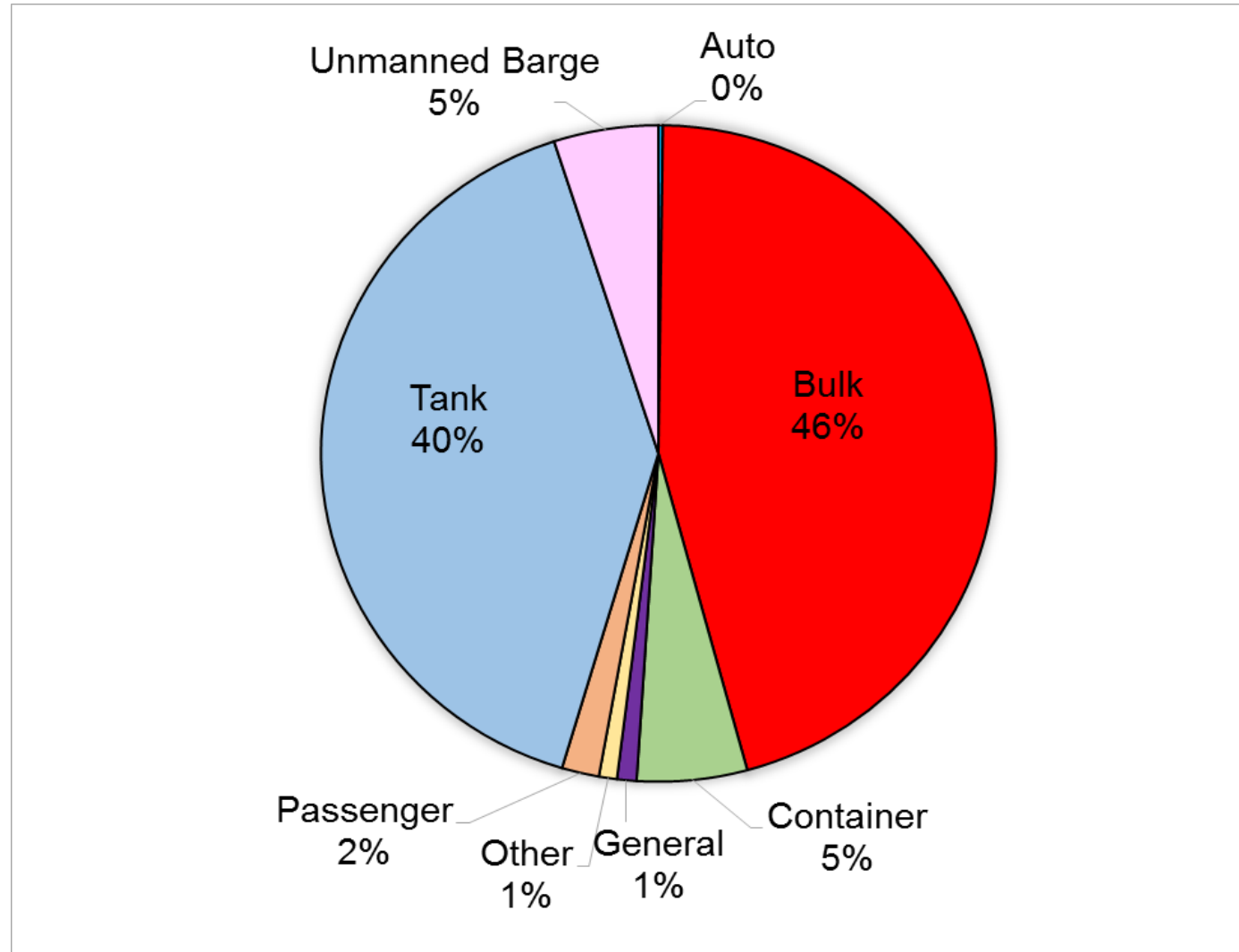
# Ballast Water Management



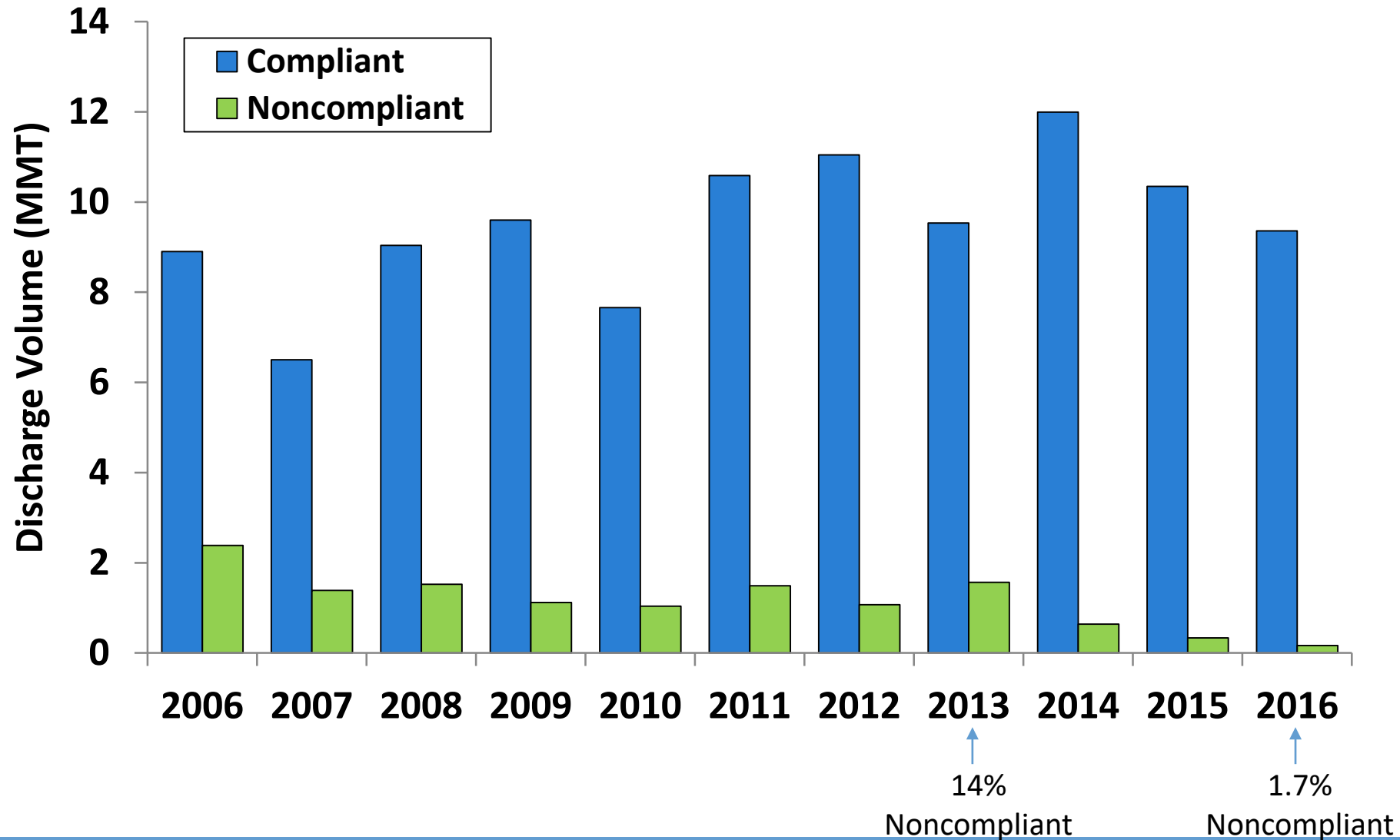
# Ballast Water Discharge



# Discharge by Vessel Type

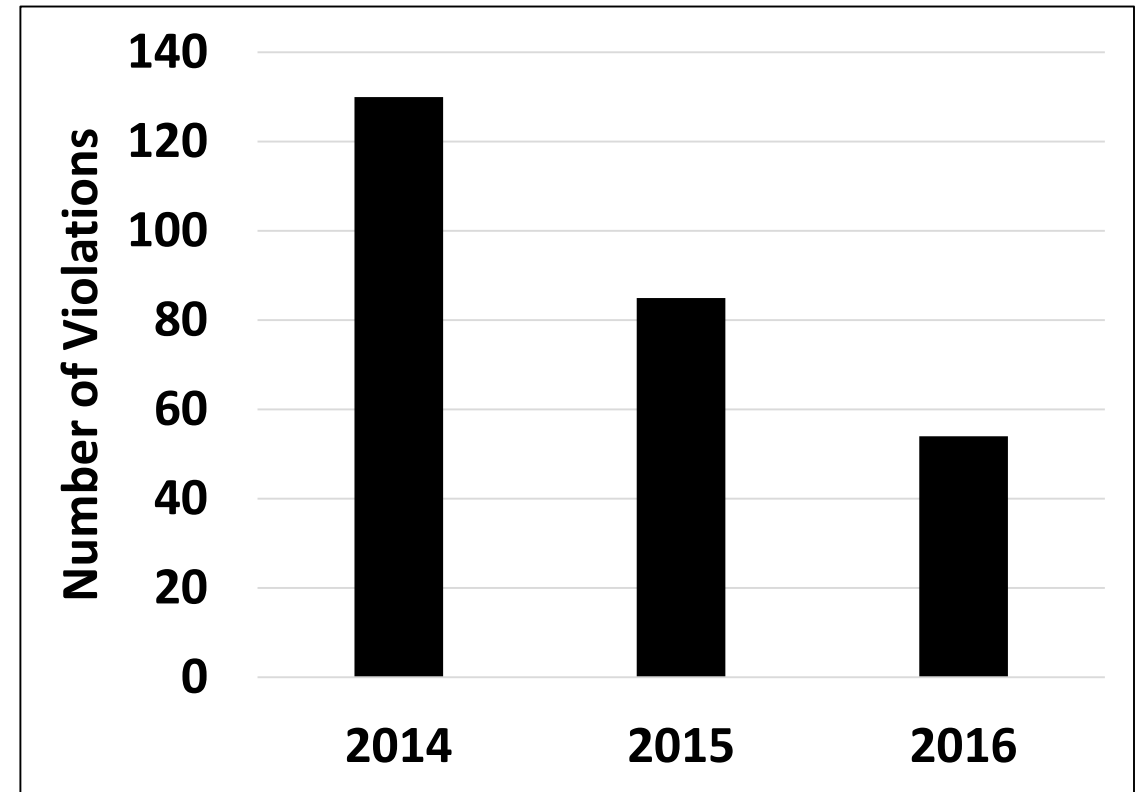
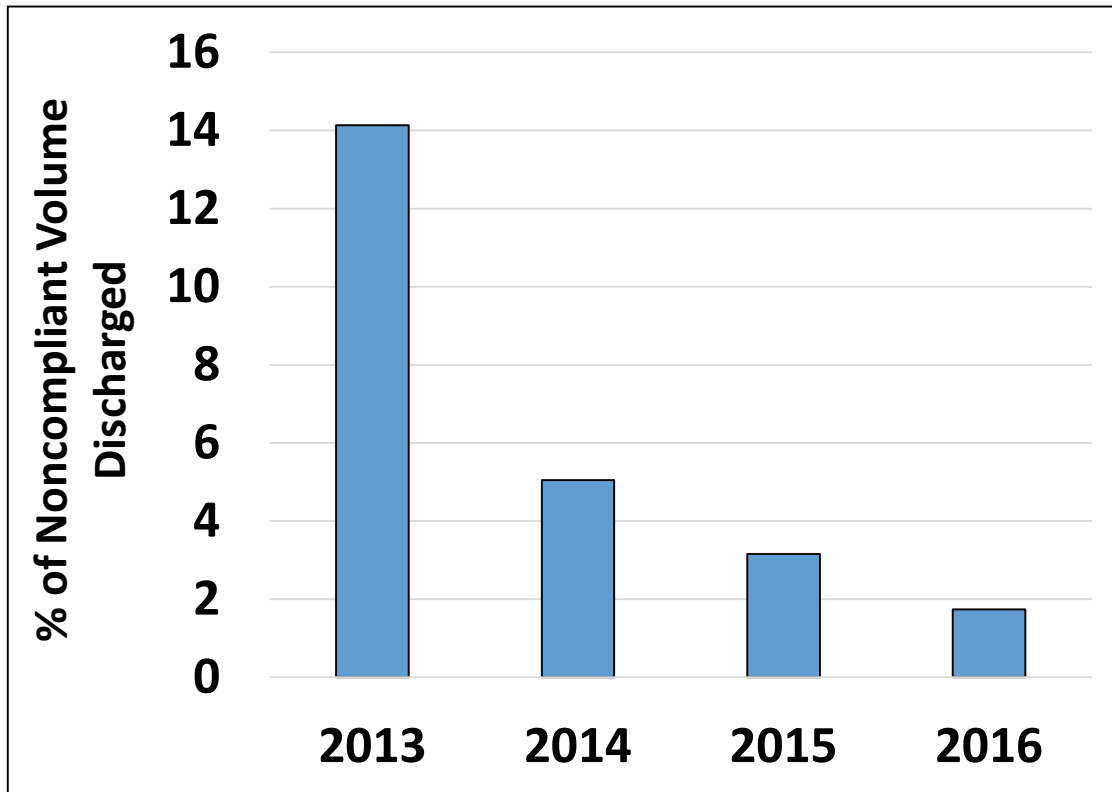


# Compliant vs. Noncompliant





# Enhanced Compliance Assessment

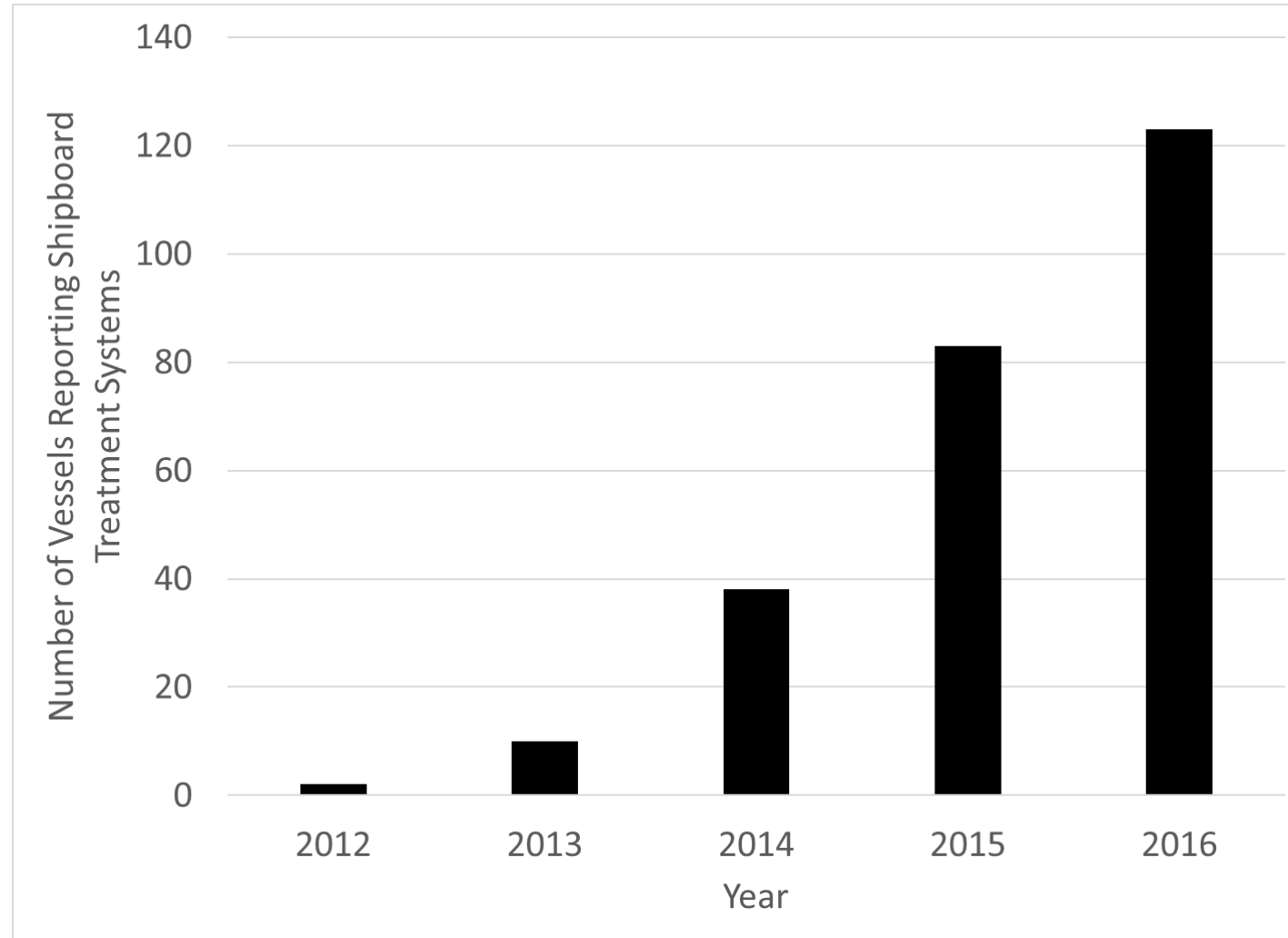


# Vessel Inspections

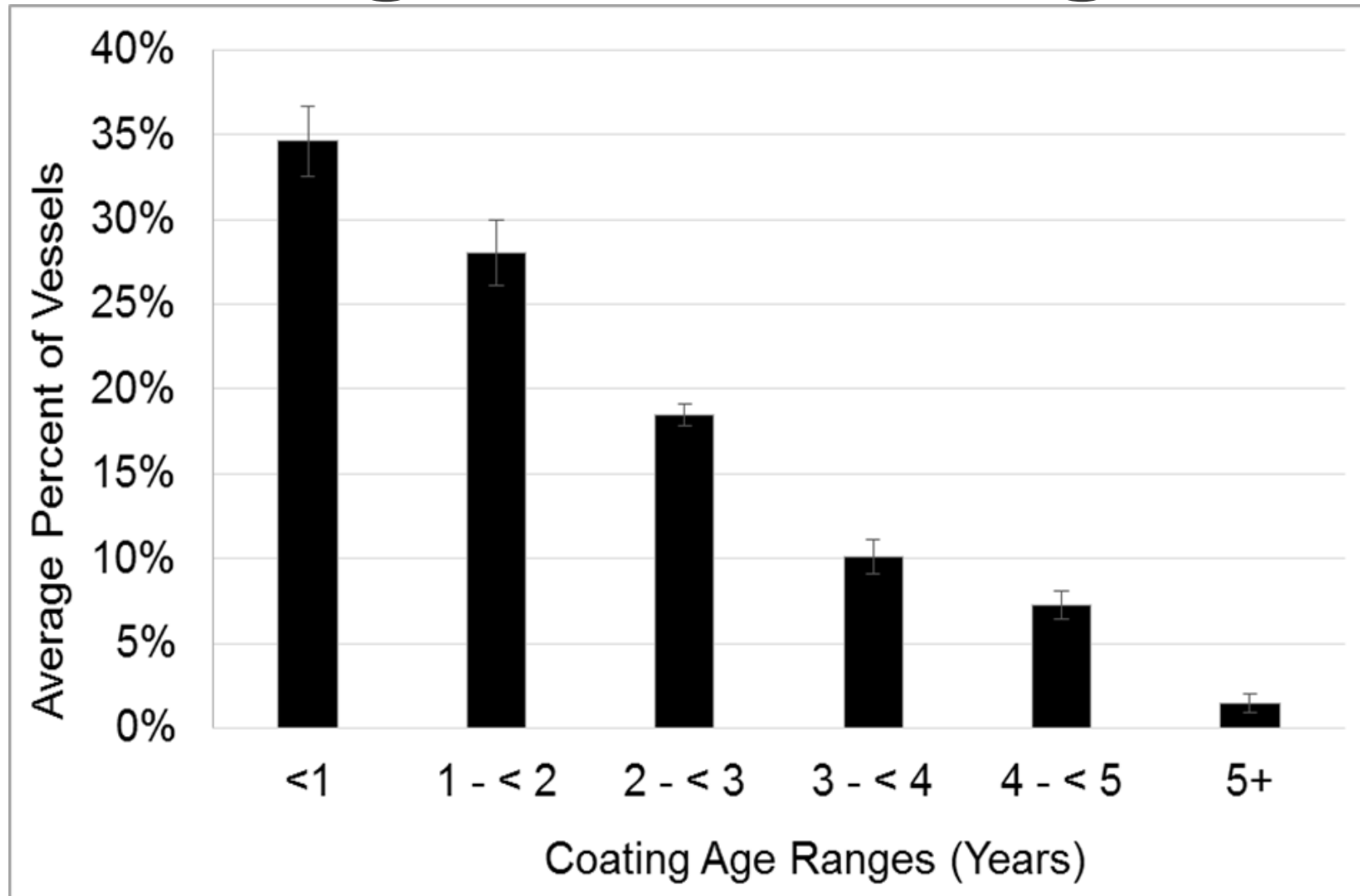
	2014	2015	2016
<b>Total Arrivals</b>	9345	9065	9164
<b>Total Inspected</b>	2442	2373	2313
<b>Percent Inspected</b>	26%	26%	25%
<b>Violations</b>	28	23	15



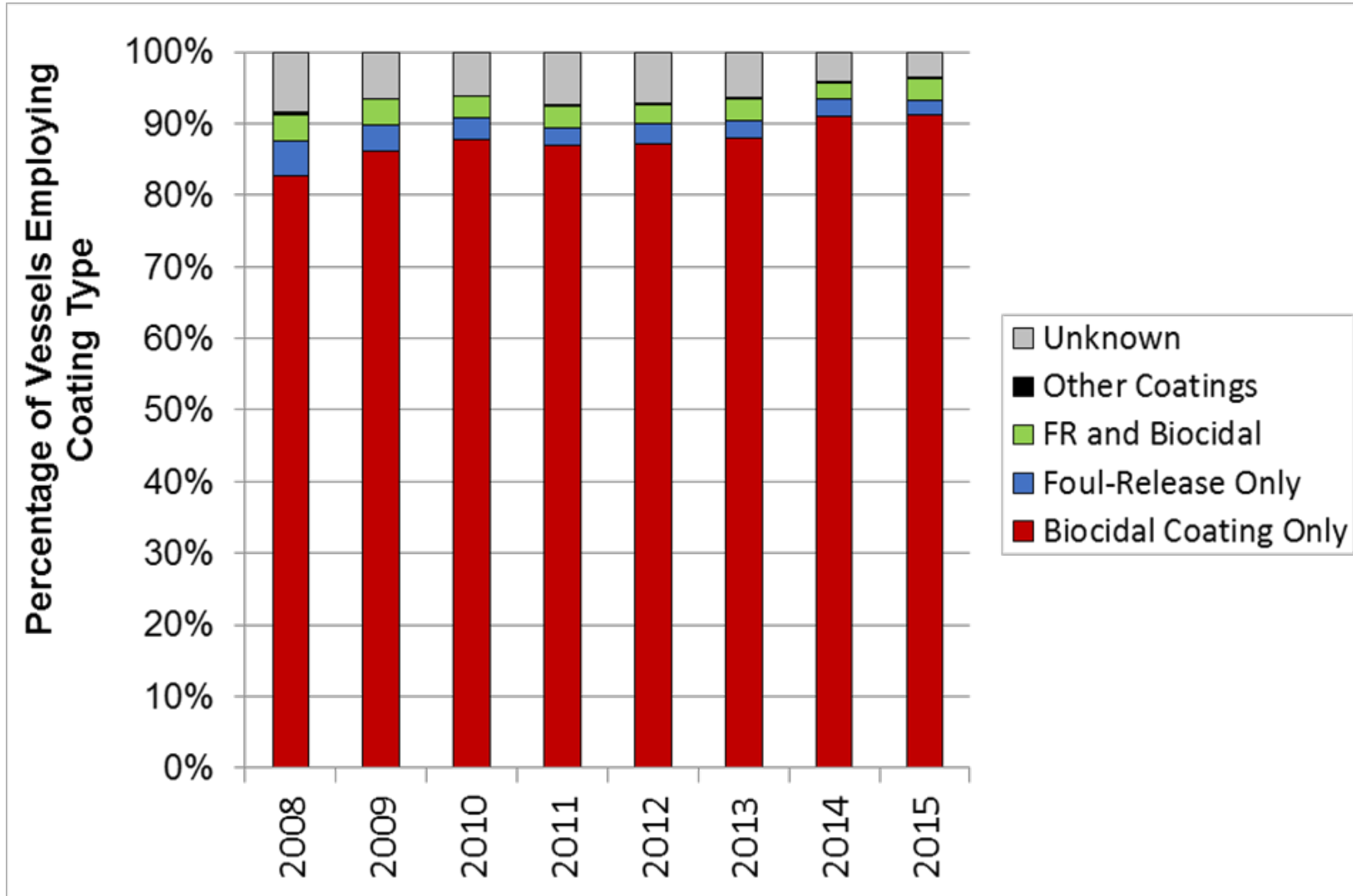
# Ballast Water Treatment



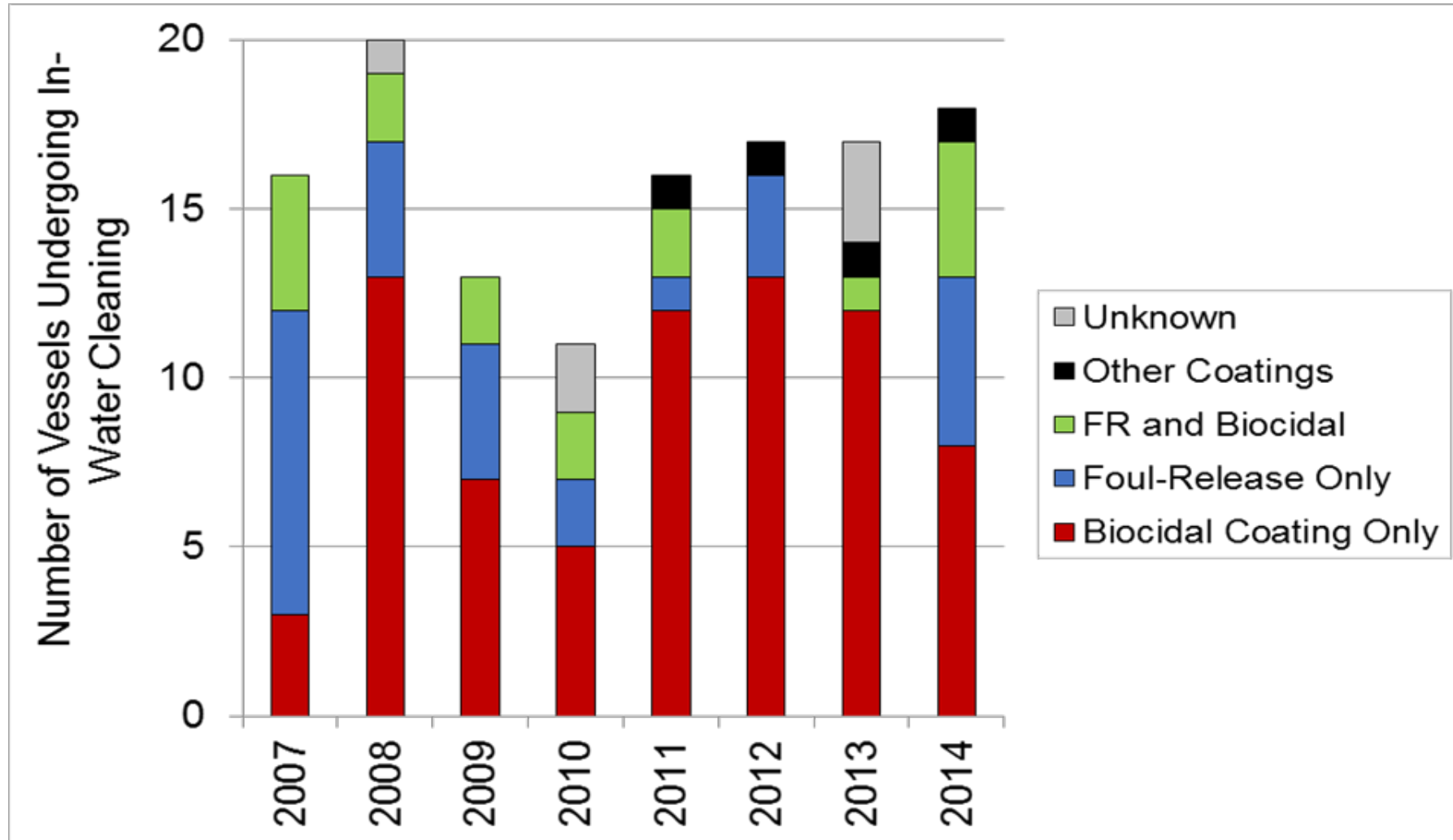
# Age of Coatings



# Antifouling Coatings



# In-Water Cleaning



# New and Proposed Regulations



# ARTICLE 4.5 - Marine Invasive Species Control Fund Fee

- Balance of the Marine Invasive Species Control Fund determined to be insufficient to fund the MISP into the future
- Rulemaking approved by Commission in December 2016
  - Approved and filed with Sec of State - February 28, 2017
  - Implementation date - April 1, 2017
- Fee of increased from \$850 to \$1,000 per qualifying arrival





# ARTICLE 4.9 - Marine Invasive Species Act Enforcement and Hearing Process

**Purpose:** To establish policies and procedures CSLC shall undertake in assessing and commencing administrative enforcement actions pursuant to CA Public Resources Code section 71216 and the steps the cited party shall take to address the actions.

- Approved by the Commission in August 2016
- Filed with Secretary of State on March 21, 2017
- Implementation - July 1, 2017



# ARTICLE 4.9 - Marine Invasive Species Act Enforcement and Hearing Process

## 1. Class 1 (operational)

- **Minor** – vessel incorrectly exchanges ballast water within 10% of required distance
- **Moderate** – vessel incorrectly exchanges ballast water within 10-50% of req. distance
- **Major (I)** – vessel incorrectly exchanges ballast water less than 50% of req. distance
- **Major (II)** – vessel does not exchange water before discharge at CA port

## 2. Class 2 (administrative)

- Vessel fails to properly maintain required documents on board (e.g. ballast water handling log)

## 3. Class 3 (administrative)

- Vessel fails to submit required reporting form (e.g. Ballast Water Management Report)

Will be updated to incorporate vessel biofouling and discharge standards as appropriate



# 4.8 Biofouling

## Recordkeeping and reporting

- Biofouling management plan, log book

## Best preventive practices

- Coatings within effective lifespan
- Niche areas management

## High-risk vessels

- Extended residency periods



# ARTICLE 4.8 - Biofouling Management to Minimize the Transfer of Nonindigenous Species from Vessels Arriving at California Ports

- Publication of proposed rule - Nov 25, 2016
  - 45-day public comment period
  - Public hearing - January 10, 2017, Port of Long Beach
- Publication of revised text
  - 15 - day public comment period - closed Feb 04, 2017
- Next steps: Finalize and present to Commission on April 20, 2017
- Availability of rulemaking documents:
  - [www.slc.ca.gov](http://www.slc.ca.gov)
  - CSLC offices - Sacramento and Long Beach



# ARTICLE 4.7: Performance Standards and Compliance Assessment Protocols for the Discharge of Ballast Water for Vessels Operating in California Waters

**Purpose:** (1) Codifies delay in implementation of interim and final ballast water standards. (2) To develop protocols to assess vessel compliance with ballast water discharge performance standards.

## Informal Comment Period (February 7 – March 24, 2017)

- Availability of rulemaking documents
  - [www.slc.ca.gov](http://www.slc.ca.gov)
  - CSLC offices – Sacramento and Long Beach

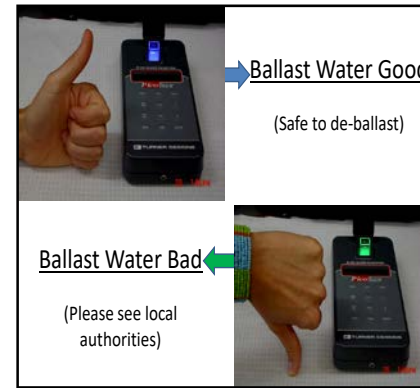




# Proposed Compliance Assessment Protocols

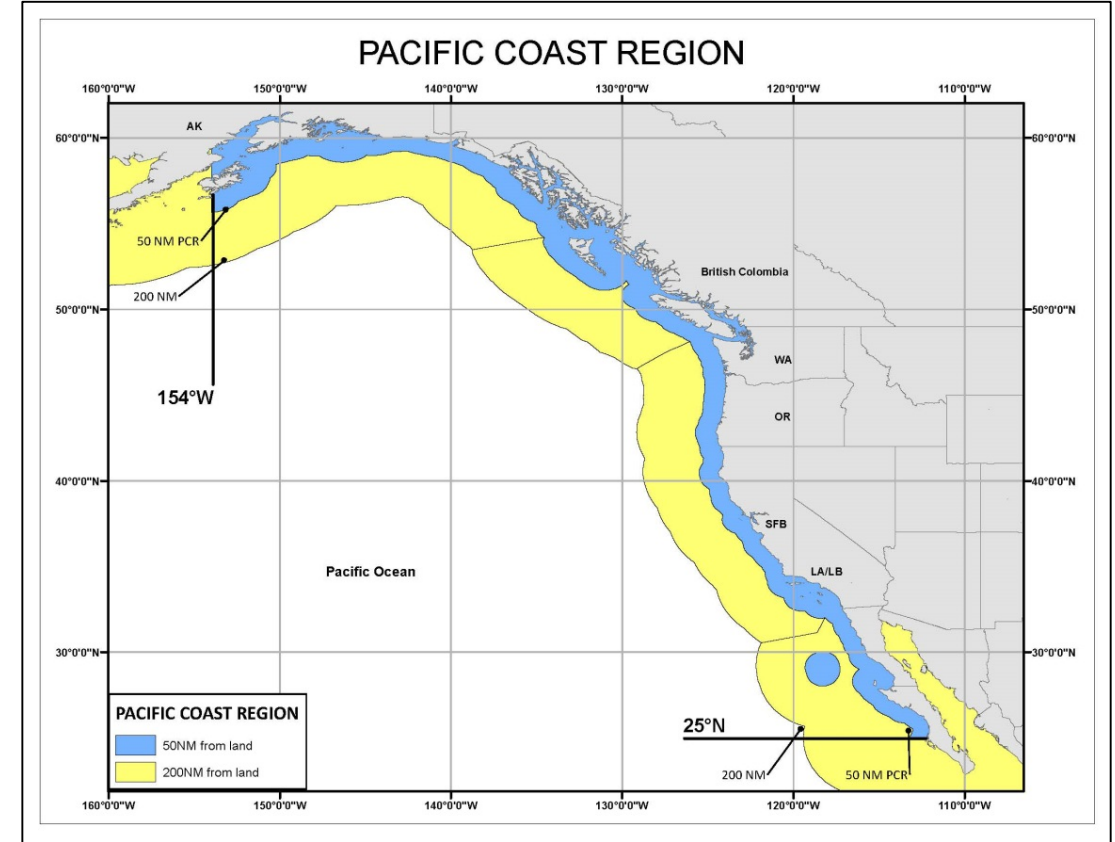
## Employ a Tiered Approach

- Paperwork, calibration, functionality
- Indicative Sampling
- Full scale testing



# ARTICLE 4.6: Ballast Water Management Regulations

- Retain all ballast on board/no discharge (~84%)
- Use of approved alternative ballast water management (e.g. AMS)
- Discharge to a shore - based reception facility (none currently exist, feasibility study expected mid-2017)
- Exchange



# ARTICLE 4.6: Ballast Water Management Regulations

## Regulatory Package:

- Adopt regulations for management of ballast water for vessels arriving from outside of the Pacific Coast Region or carrying ballast water from outside the Pacific Coast Region
- Investigate continuation of ballast water exchange for vessels arriving at California's freshwater ports after the implementation of discharge standards
- Ballast water reception facility approval process

Rulemaking process to begin late 2017





# Research



# Ballast Water

## Shore-based ballast water treatment feasibility study

- Delta Stewardship Council (Project manager)
- Glosten Associates (Contractor)

## Enumerating viruses in ballast water

- Michigan State University

## Invasive zooplankton of California estuaries

- Washington State University



# Biofouling

Vessel biofouling and invasions: evaluating biofouling introduction risks under lay-up conditions in marine systems

- Smithsonian Environmental Research Center

Assessing role of copper tolerance in biofouling invasion risk

- San Jose State University



# Efficiency of Operations

Map business processes, eliminate redundancies

Update risk prioritization matrix

Modernize data collection process

Consolidate reporting forms

GIS model automation

Industry outreach



# Thank you!

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