

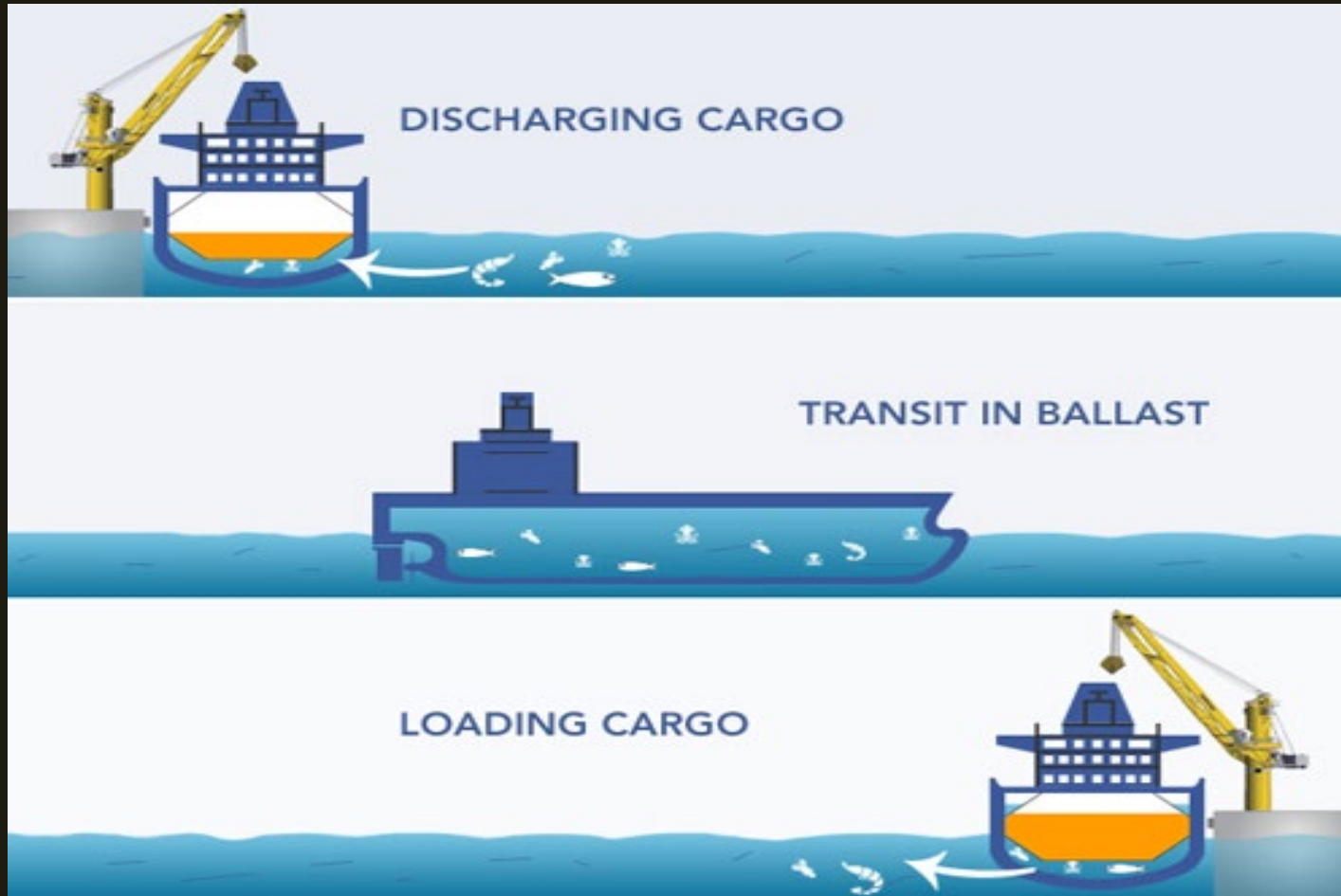


Ballast Water Program Rule Updates

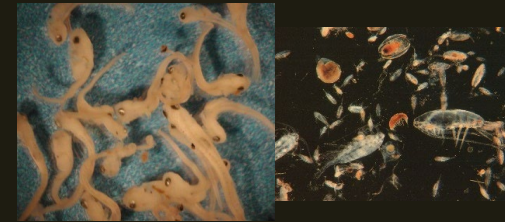
Environmental Quality Commission

Josh Emerson
Nov. 16, 2023
DEQ HQ, Portland

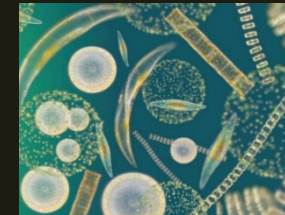
Ballast Water: a vector for invasion



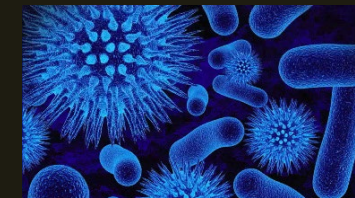
Larvae & Zooplankton (10x)



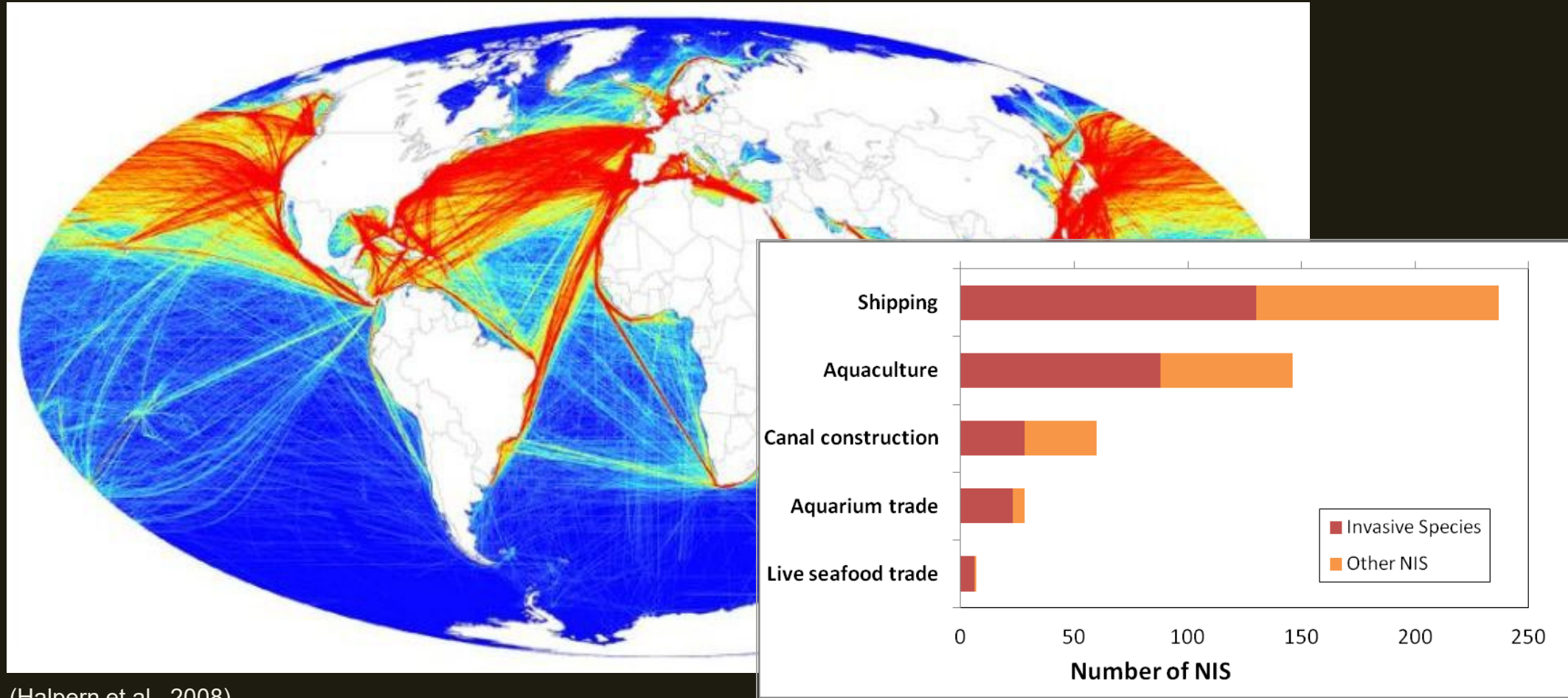
Phytoplankton (100x)



Microbes (1000x)



Invasive Species Concerns - Global



(Halpern et al., 2008)

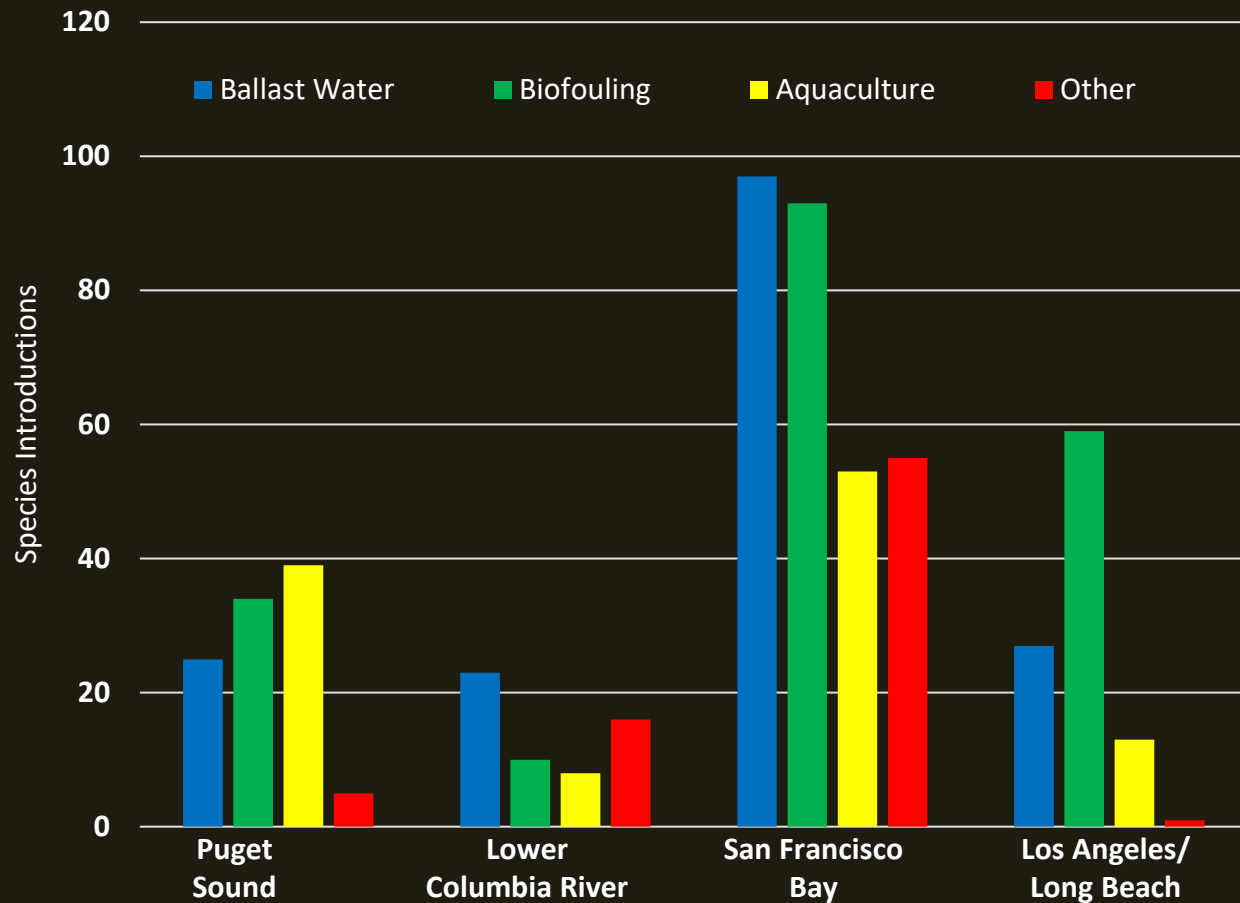
(modified from Molnar et al., 2008)

Invasive Species Concerns - Global



© Christian Sardet/CNRS/Tara Expéditions

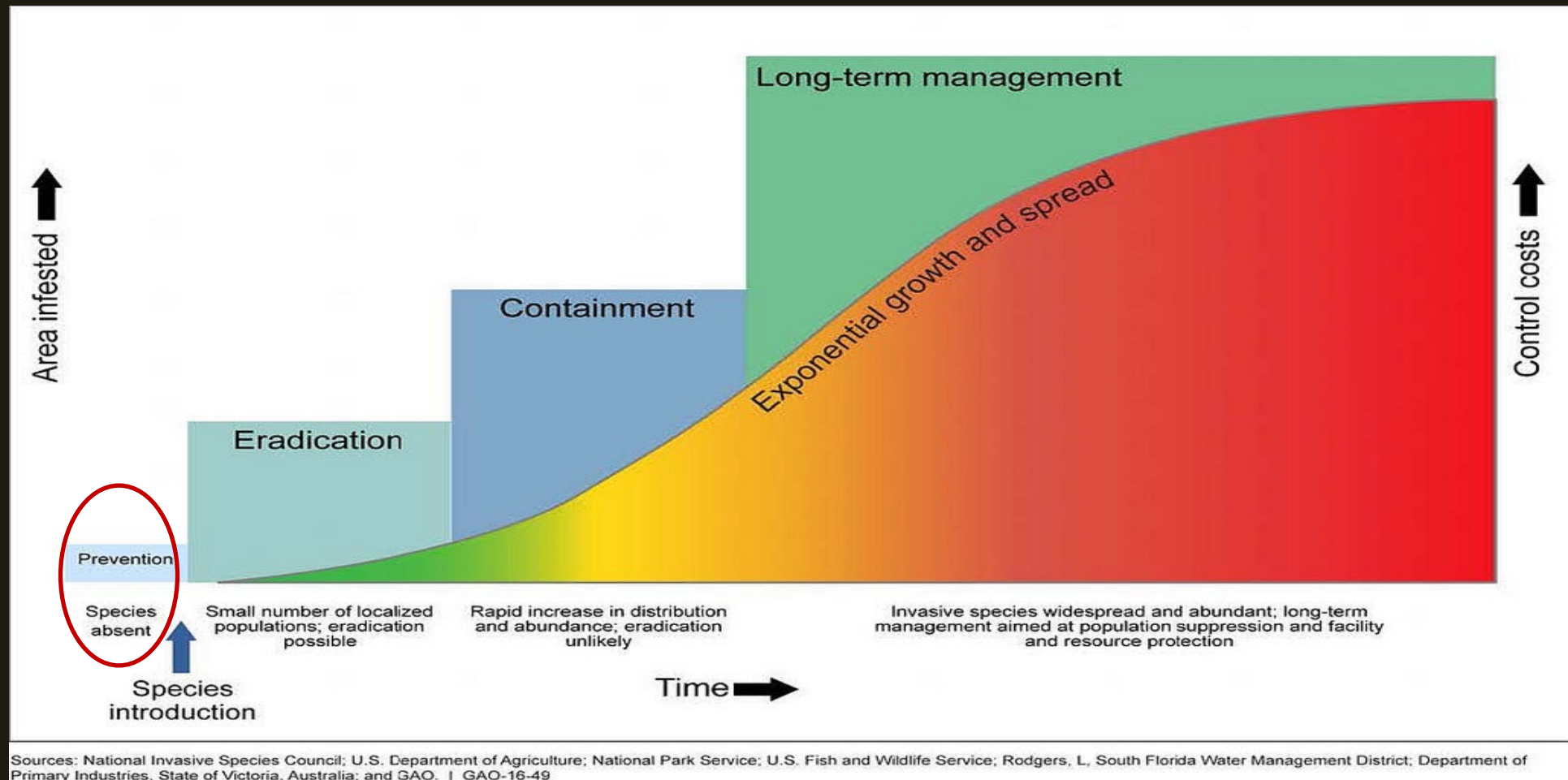
Invasive Species Concerns - Oregon



modified from Simkanin et al. 2010

- At least 55 aquatic NIS established in lower CRE
 - Sytsma et al. 2004
- Targeted studies reveal NIS presence and potential ecological effects, but more research is needed
 - Cordell et al. 2007
 - Bollens et al. 2012
 - Breckenridge et al. 2014
 - Emerson et al. 2015

Critical Aquatic Invasive Species Strategy: Prevention



Oregon's Ballast Water Program

- Regulations established in 2001
 - Significant amendments in 2005, 2009, 2011 & 2017
- Program funding
 - Initial level of 1.0 FTE (2007) was increased to 1.5 FTE following implementation of arrival fee in 2012
 - Supported by 50/50 cost share between fee revenue and GF



Oregon's Ballast Water Program

Program activities include:

- Monitoring vessel arrivals and pre-arrival reporting compliance
- Outreach and technical support
- Vessel inspections and compliance verification sampling
- Enforcement actions
- Policy development and stakeholder engagement



Oregon's Ballast Water Program

Statutory Requirements (ORS 783.620-640; 783.990-992)

- Regulated vessels:
 - >300 gross tons and equipped with ballast water tanks
- Management requirements for discharge:
 - Mid-Ocean Exchange or Coastal Exchange
 - USCG-approved treatment
- Exemptions:
 - Common Water, Safety of vessel/crew



What is the Oregon's 'E+T' Rule?

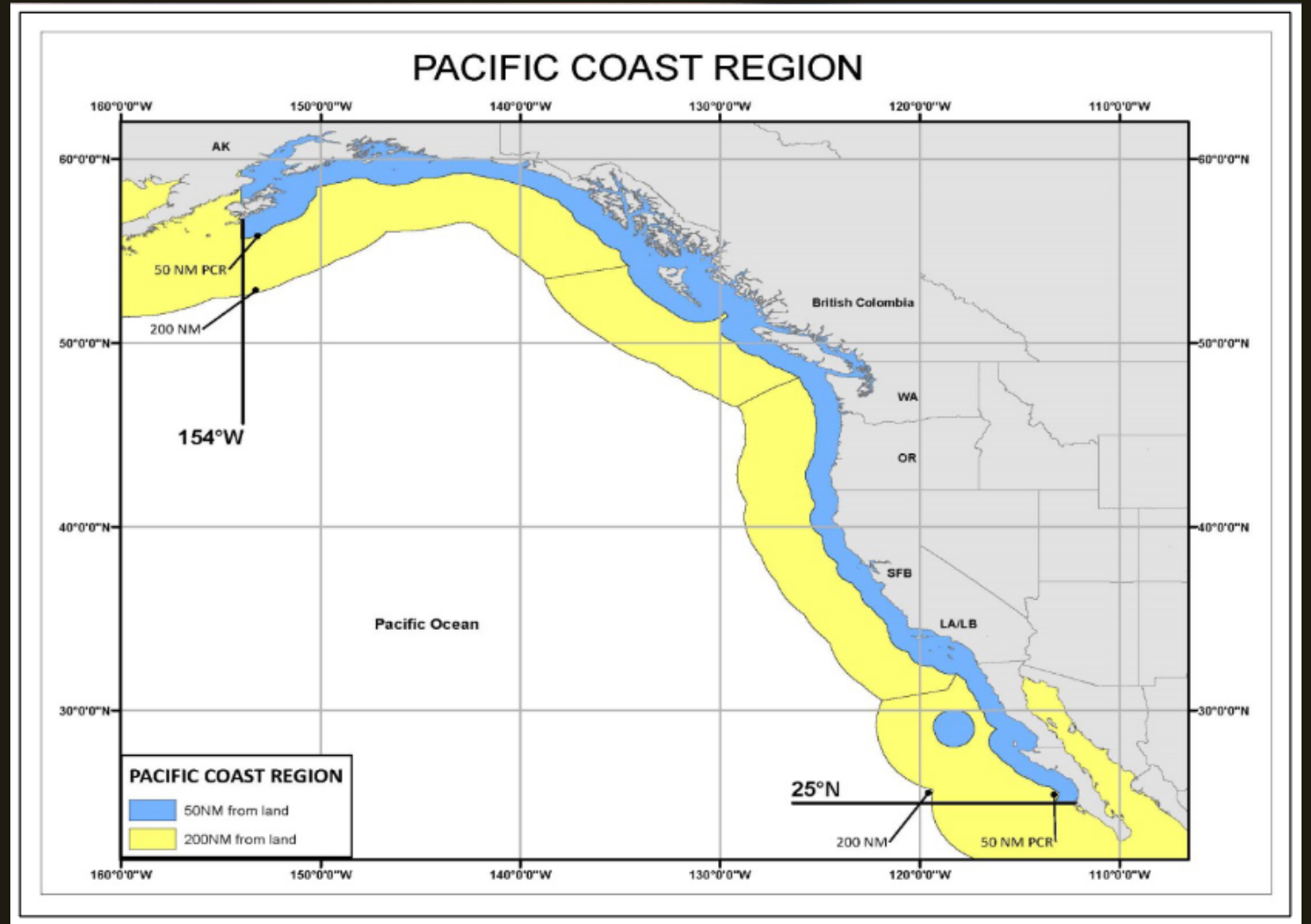
340-143-0050

Ballast Water Management: Shipboard Ballast Water Treatment Systems

- 2) Ballast exchange plus treatment.** For vessels managing ballast water with a shipboard treatment system under federal discharge standards, the vessel operator must also conduct ballast water exchange for tanks with ballast water salinity less than or equal to 18 parts per thousand, or under circumstances when vessel operator is unable to verify ballast salinity. This requirement applies to ballast discharge to waters of the Columbia River, Coos Bay, or Yaquina Bay. Under these circumstances, vessel operators must conduct ballast exchange or saltwater flushing practices prior to treatment...resulting in salinity greater than or equal to 30 parts per thousand.

Compliant Discharges

- Mid-ocean source
- Mid-ocean exchange
- Compliant treatment
- Exchange + Treatment
 - 18 ppt → 30 ppt



Changes in this Rulemaking

- ‘Exchange + Treatment rule’ sunset date
- Pacific Coast Region definition
- Errata/corrections
 - Email address
 - CFR reference
 - Cholera serotype



Update 1: Cholera name correction

340-143-0050

Ballast Water Management: Shipboard Ballast Water Treatment Systems

- Toxicogenic serotypes of *Vibrio cholera* are incorrectly identified as serotypes 01 and 0139.
- Correct nomenclature is serotypes O1 and O139.

Update 2: CFR citation correction

340-143-0005

Definitions

- (2)(d) “Exchange” means to replace the water in a ballast tank using either flow-through exchange, empty/refill exchange, or other exchange methods described under U.S. Coast Guard rules, 33 CFR, part 151.2035.
- Correct CFR citation is 151.2005.

Update 3: Email address correction

340-143-0020

Ballast Water Management: Reporting, Management Plans and Recordkeeping

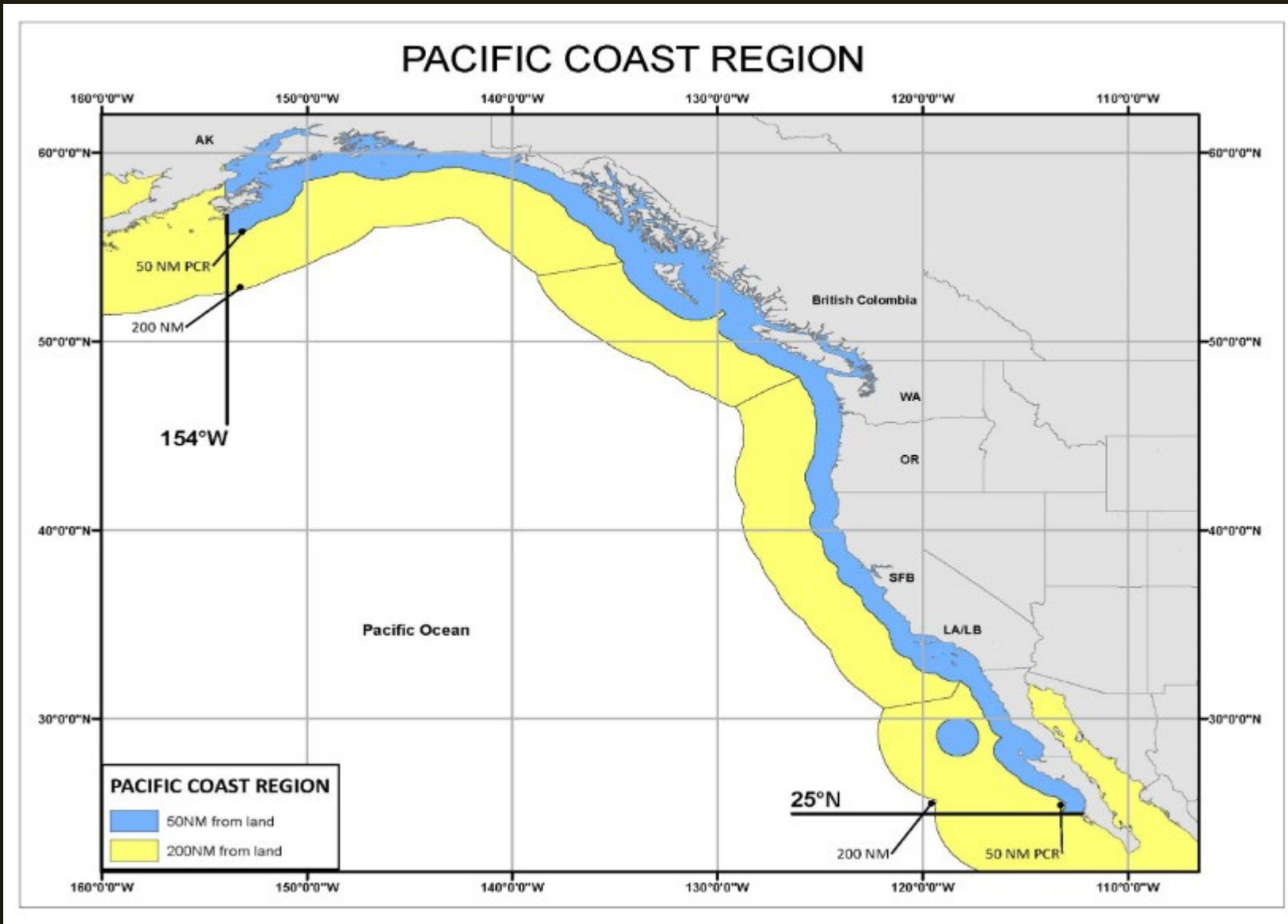
(1) A vessel owner or operator covered by OAR chapter 340, division 143 must report ballast water management... Compliance with these reporting requirements may be met by sending the report to DEQ via e-mail (ballast.water@deq.state.or.us), fax, or mail...

Update 4: Pacific Coast Region definition

340-143-0005

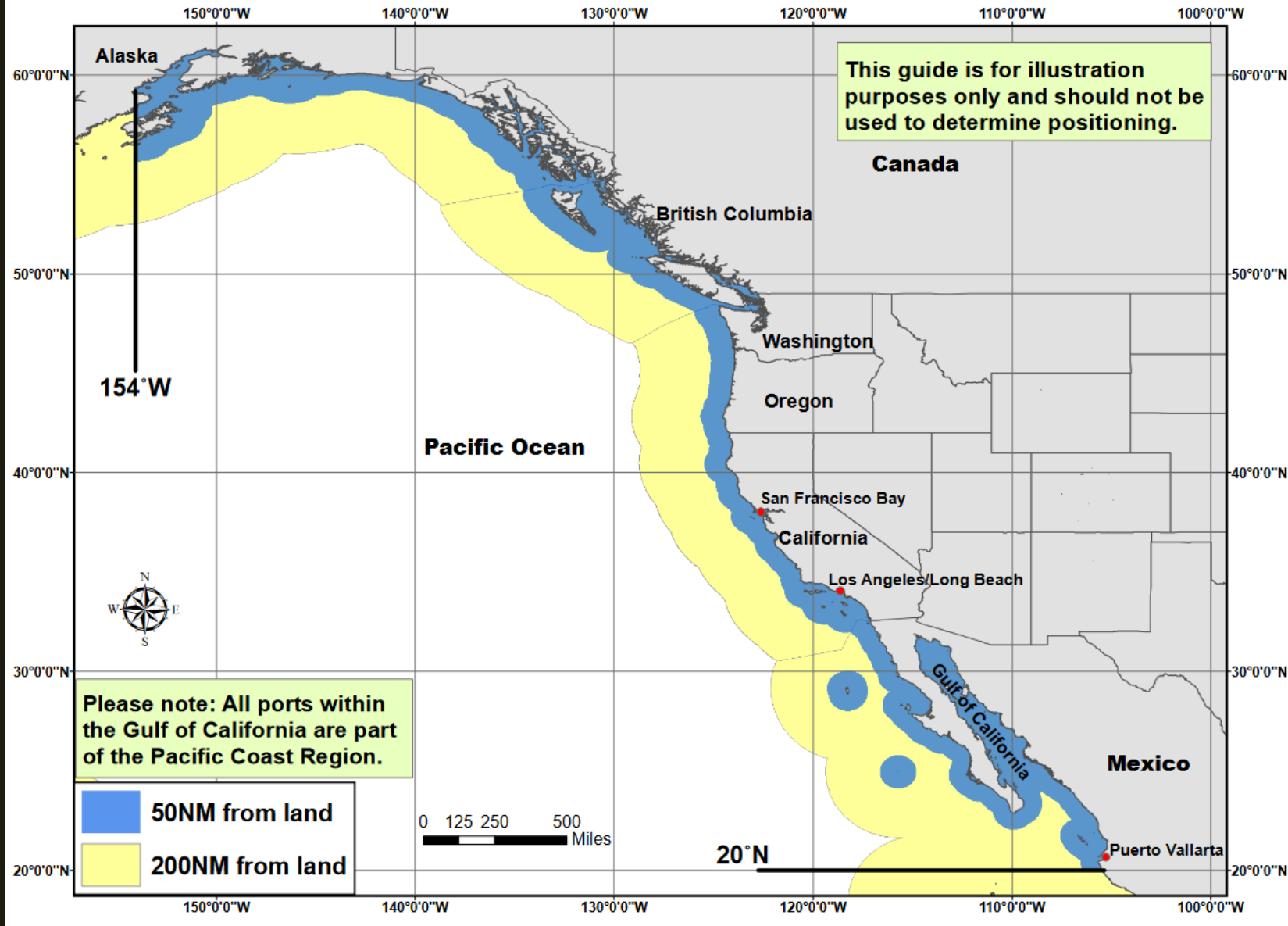
Definitions

- (2)(i): “Pacific Coast Region” means all coastal waters on the Pacific Coast of North America east of 154 degrees W longitude and north of 25 degrees N latitude, exclusive of the Gulf of California.
- ORS 783.635 (4)(b): to the extent practicable, the commission shall adopt rules under this subsection consistent with relevant rules adopted by the States of California and Washington.



PACIFIC COAST REGION

(Effective January 1, 2020)



Update 5: 'E+T' rule sunset date

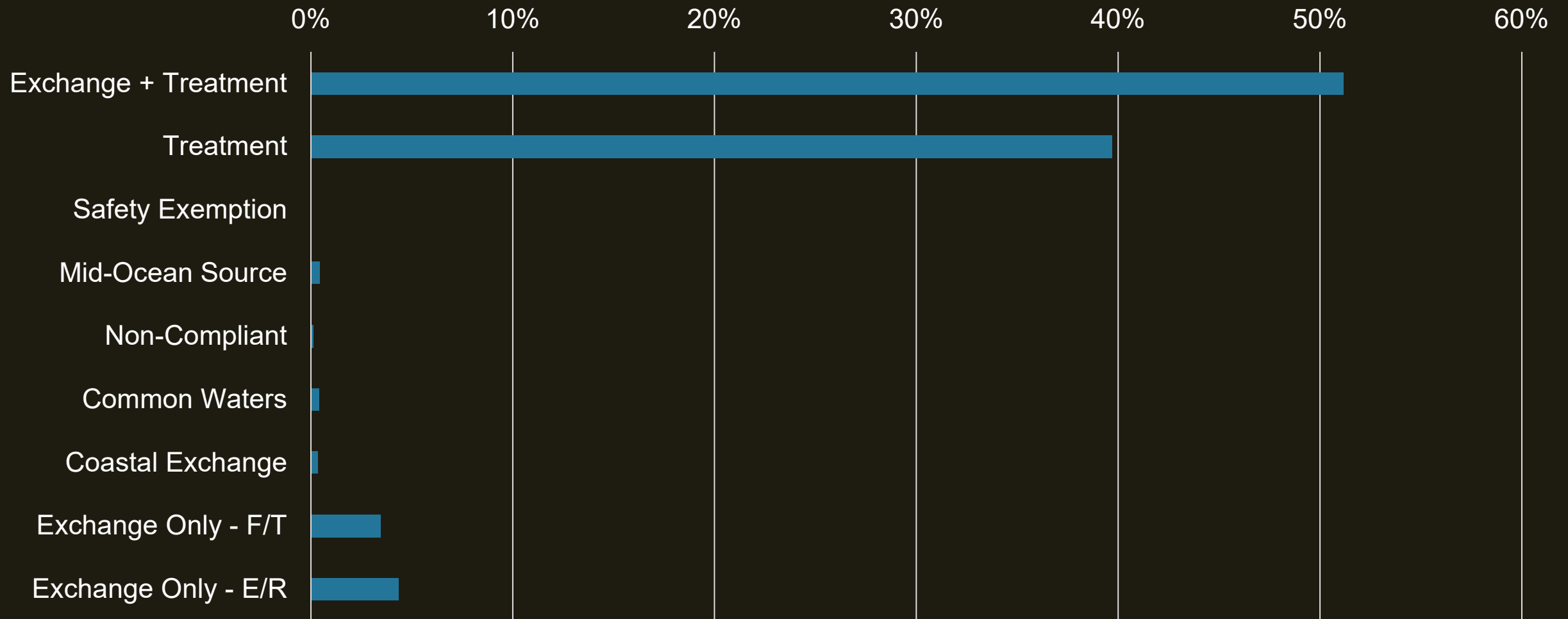
340-143-0050

Ballast Water Management: Shipboard Ballast Water Treatment Systems

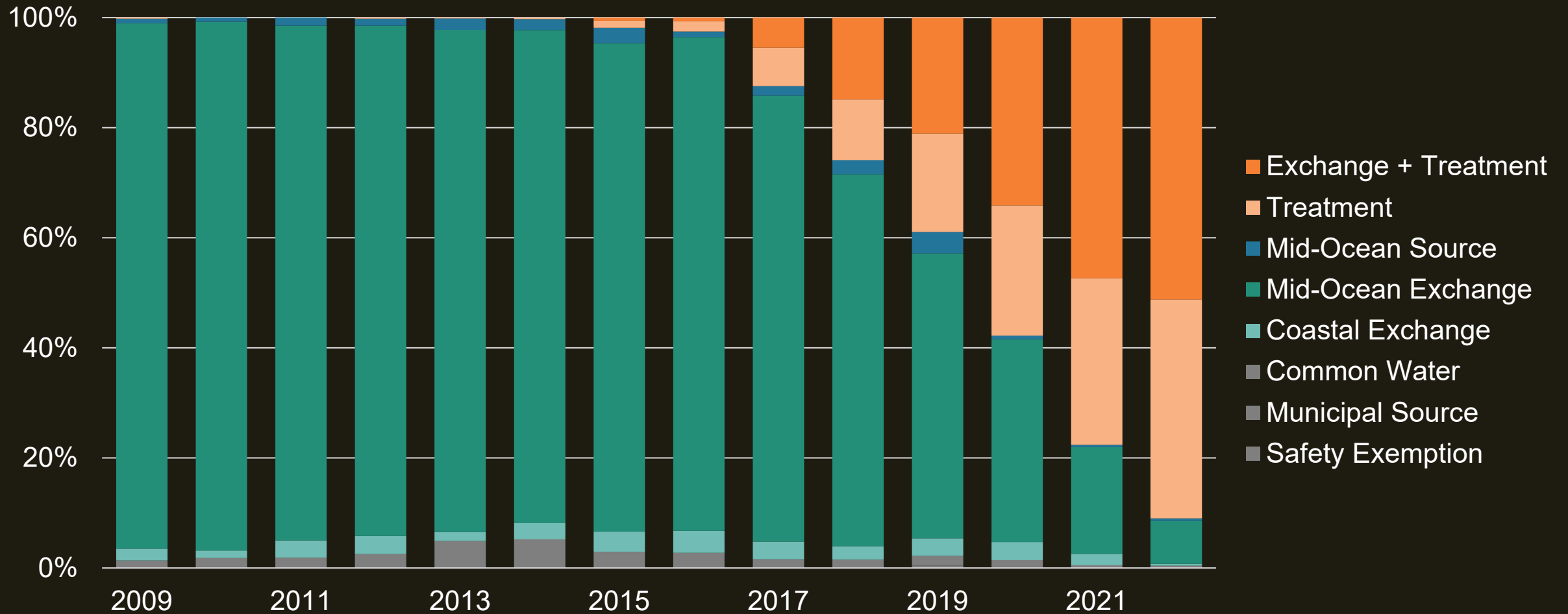
“...this rule is no longer in effect after December 19, 2023. Before this date, DEQ, in consultation with a stakeholder advisory group, will review current science on the efficacy of federal ballast water discharge standards and shipboard treatment systems, or the potential need for continuation of this rule to prevent introductions of aquatic invasive species to Oregon waters.”

This sunset date was included in 2015-2016 rulemaking effort due to the lack of adequate protection at the federal level, with VIDA on the way but on an uncertain timeline.

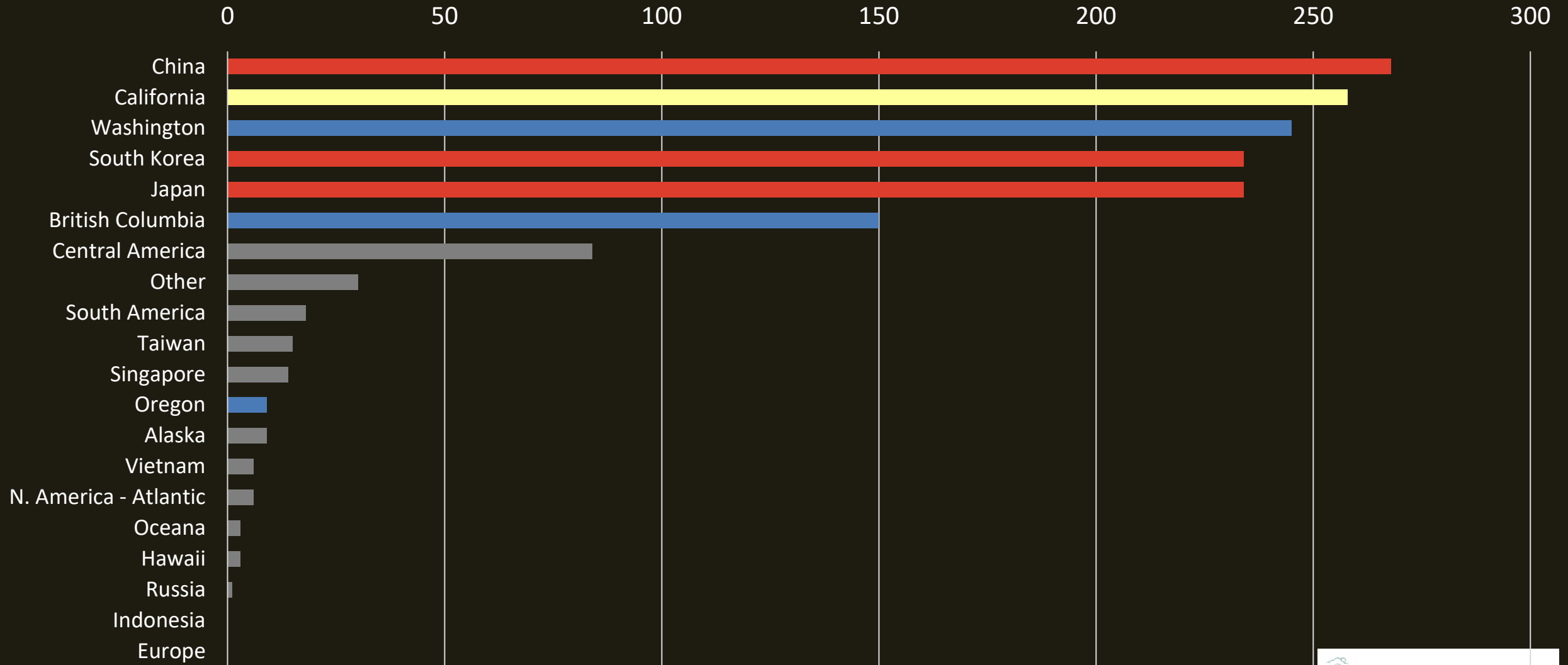
BW Management Snapshot – 2022



BW Management Trend



2022 Arrivals – Last Port



Update 5: 'E+T' rule sunset date

340-143-0050

Ballast Water Management: Shipboard Ballast Water Treatment Systems

“...this rule is no longer in effect after December 19, 2023. Before this date, DEQ, in consultation with a stakeholder advisory group, will review current science on the efficacy of federal ballast water discharge standards and shipboard treatment systems, or the potential need for continuation of this rule to prevent introductions of aquatic invasive species to Oregon waters.”

This sunset date was included in 2015-2016 rulemaking effort due to the lack of adequate protection at the federal level, with VIDA on the way but on an uncertain timeline.

Vessel Incidental Discharge Act

- Signed into law in 2018
 - EPA: new discharge standards by end of 2020 (currently 2024)
 - USCG: implementation regulations by end of 2022 (2026, at earliest)
- Incorporates Oregon's 'E+T' rule, and applies to entire PCR
- Oregon's rule sunset in 2023 presents a gap in prevention and protection

RAC Membership

Name	Title or Role	Affiliation	Interest Represented
Kate Mickelson	Executive Director	Columbia River Steamship Operators' Association	Industry
Carl Bertapelle	Marine Operations Services Manager	Portland Merchants Exchange	Industry
Ross McDonald	Director of Safety, Quality, Environment, and Security	Sause Bros.	Industry
Blake Hamalainen	Manager, Environmental Land and Water	Port of Portland	Industry
Dick Vander Schaaf	Associate Conservation Director, Oregon Coast and Marine Program	The Nature Conservancy	Environmental
Sarah Kidd	Senior Scientist and Manager of Estuary Research and Monitoring	Lower Columbia Estuary Partnership	Environmental
Catherine de Rivera	Professor, Environmental Sciences and Management	Portland State University	Academia
James Michelli	Emergency Manager, Clatsop County	U.S. Coast Guard	Federal
Art Leskowitch	Environmental Compliance Coordinator	U.S. Army Corps. of Engineers	Federal
Blaine Parker	Sturgeon Project Lead, Avian Predation and Invasive Species Coordinator	Columbia River Inter-Tribal Fish Commission	Tribal
Torey Wakeland	Ceded Lands Program Manager	Confederated Tribes of Grand Ronde	Tribal

Public Comment

One letter received from a RAC member:

- 1) DEQ's review of current science regarding E + T was insufficient
- 2) Recommendation that the sunset date not be removed, but extended by two years to be certain of federal requirements

Response to Public Comment

- We appreciate the comments and updated our recommendation that the sunset date be extended by four years, to December 2027; re-evaluate E+T literature and need for sunset date.

Key Points

- Exchange + Treatment has protected Oregon waters since 2017
- Exchange + Treatment is more protective than treatment alone
- VIDA has incorporated the 'Oregon Rule' and applied it to the Pacific Region
- VIDA has been signed into law, but will not be in force until at least 2026
- Oregon's rule sunsets in 2023, creating a gap in protection



Recommendation



“I move that the commission adopt the proposed rule amendments in Attachment A as part of chapter 340 of the Oregon Administrative Rules.”

Title VI and alternate formats

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