STAFF REPORT

82

A Statewide 02/04/19
S. Pemberton
S Statewide N. Dobroski

CONSIDER SPONSORING LEGISLATION IN THE 2019-20 LEGISLATIVE SESSION TO AMEND THE MARINE INVASIVE SPECIES ACT

SUMMARY:

Existing law authorizes the Commission to implement ballast water discharge performance standards that limit the allowable concentration of living organisms in discharged ballast water. California has interim and final performance standards. They were meant to be phased in between 2009 and 2016 to allow time for technology to develop, but have been delayed several times because there are no available treatment technologies capable of meeting California's standards. The interim standards take effect on January 1, 2020. The final standards take effect on January 1, 2030. A recent report from the Commission found that there are no ballast water treatment technologies available to enable vessels to meet California's interim standards.

Staff recommends that the Commission direct staff to work with the Legislature to develop legislation relating to California's ballast water discharge performance standards, authorize the Commission to sample ballast water and biofouling for research purposes, update the definition of Pacific Coast Region, and make various technical, code cleanup changes to the Marine Invasive Species Act.

BACKGROUND:

Nonindigenous species are organisms that pose significant risks to the economy, the environment, and human health. These organisms are intentionally and unintentionally transported through human activities to new habitats, such as California's marine, estuarine, and freshwater environments. Once established in a new geographic location and causing impacts, they are known as invasive species.

Because attempts to eradicate invasive species are often unsuccessful and costly, prevention by managing the vectors responsible for their movement is the most effective way to address them. In coastal environments, shipping is the most significant pathway for the transport and introduction of nonindigenous species. Ballast water and vessel biofouling are known as vectors; they are mechanisms within the shipping pathway that transport aquatic nonindigenous species.

Ballast water is carried in vessels to improve or maintain stability, balance, and trim. It is often taken on in coastal waters in one region and discharged at a port in another region when cargo is loaded. Ballast water can contain millions of microscopic aquatic plants, animals, bacteria, and viruses that are transported around the globe by vessels.

Vessel biofouling refers to the attachment or association of an organism or group of organisms (community) to a vessel's wetted surfaces. The vessel biofouling community consists of sessile (directly attached to the vessel) and mobile organisms and can include barnacles, algae, mussels, worms, crabs, and other invertebrates.

In 1999, the Legislature established the Marine Invasive Species Program to prevent the introduction of nonindigenous species from vessels. The Program, administered by the Commission, regulates vessels arriving at California ports. Its mandate is to expeditiously eliminate the discharge of nonindigenous species into state waters or waters that may impact state waters based on the best available technology economically achievable.

Existing state law authorizes the Commission to implement ballast water discharge performance standards that limit the allowable concentration of living organisms in discharged ballast water. They were meant to be phased in between 2009 and 2016 to allow time for technology to develop but have been delayed several times because there are no available ballast water treatment technologies capable of meeting California's standards. The current interim standards take effect on January 1, 2020. The final standards take effect on January 1, 2030. These standards and their implementation schedule are set by statute.

Before the standards can be implemented, the Commission must review the efficacy, availability, and environmental impacts of available technologies for ballast water treatment and provide a report to the Legislature with this information. The most recent report, approved in December 2018 (Item 77, December 3, 2018), found that the interim performance standards cannot be met. Previous reports also found that California's standards could not be met owing to a lack of ballast water treatment technologies capable of meeting the standards.

The Commission continues to face challenges in the review of available ballast water treatment technologies. The U.S. Coast Guard process for approving shipboard ballast water management systems, the most detailed evaluation protocol in the world, was developed to determine the ability of systems to meet federal ballast water discharge standards, which are weaker than the California performance standards. The U.S. Coast Guard refuses to release the test data

for approved systems. This hinders the Commission's ability to assess if systems can meet any standard stricter than the federal standards. Another hindrance is that the Commission lacks the authority to sample ballast water or biofouling for research purposes.

Another impediment to implementing the interim performance standards is a lack of suitable methods to analyze ballast water samples for some of the interim performance standards, including organisms between 10 and 50 micrometers in minimum dimension, total living bacteria, and total living viruses. The Commission will remain unable to determine if any ballast water treatment technologies can meet California's performance standards unless there are future scientific breakthroughs on methods to assess the concentration of all living organisms for these size classes.

At the federal level, the U.S. EPA and the U.S. Coast Guard regulate ballast water discharges. The U.S. EPA's authority is based on the Clean Water Act and the U.S. Coast Guard's authority is based on the National Invasive Species Act. In 2012, the U.S. Coast Guard implemented federal ballast water management regulations requiring all ocean-going vessels discharging ballast water into U.S. waters to install ballast water management systems to meet the federal discharge standards. These rules require that all vessels install the technology by their first dry-docking after January 1, 2016. The U.S. EPA established similar ballast water management requirements through the National Pollutant Discharge Elimination System Vessel General Permit. The California performance standards are more stringent than the federal standards, and also require vessels to meet discharge standards for total living bacteria and viruses.

For many years, the shipping industry has advocated for enactment of one uniform national standard for ballast water discharge to replace the perceived patchwork of state and federal ballast water management requirements. The legislation it sought, the federal Vessel Incidental Discharge Act (VIDA), failed repeatedly in recent years. But in December 2018, VIDA became law. VIDA, regrettably, preempts California's authority to establish or implement state-specific ballast water management requirements. Under VIDA, the U.S. EPA is responsible for establishing a uniform national standard for ballast water discharge. The U.S. EPA has 2 years to adopt vessel discharge regulations, and the U.S. Coast Guard, the entity charged with implementing and enforcing the discharge standards established by the U.S. EPA, has 2 additional years to adopt implementation and enforcement regulations. State laws remain effective until the U.S. Coast Guard promulgates regulations establishing enforcement protocols. States, including California, may enforce the federal standard, inspect vessels, and collect fees and ballast water management reporting forms from vessels arriving at ports.

DISCUSSION AND STAFF RECOMMENDATION:

Between 2007 and 2014, the Commission produced multiple reports for the Legislature indicating that ballast water treatment technologies were not available to enable vessels to comply with the California performance standards. In response, the Legislature delayed implementation. The 2018 report, like previous reports, found that California's performance standards cannot be met.

The Legislature, when it codified the performance standards, intended that they would drive technology and result in treatment systems capable of meeting California's stringent standards. The hope was that California would set the bar high, technology would catch up, and California would lead the nation with the most protective standards. Unfortunately, enshrining strict standards in statute was not enough to drive technology to a point where treatment systems that were capable of meeting such standards were developed. Large oceangoing vessels, the vessels subject to California law, traverse waters throughout the world—hence the risk of nonindigenous species introductions. Because these vessels travel around the world, they are subject to many state and federal laws. The federal government has established its own standards, which are less stringent than California's. Vessel operators invest in treatment systems capable of meeting the federal standards and treatment technology developers lack an incentive to develop systems capable of meeting California's standards.

At a minimum, the Legislature should delay implementation of the interim standards because there are no technologies available to enable vessels to comply on January 1, 2020. Maintaining the status quo, however, is not the most protective method to prevent species introductions in California waters. The U.S. Coast Guard has approved 15 ballast water management systems to meet the federal ballast water discharge performance standards. If California were to adopt the federal standards before ballast water treatment technologies were available to meet the California interim standards, then the Commission could begin assessing vessel compliance and hold non-compliant vessels accountable for violations. In the meantime, staff could collect valuable real-world data on the operation of ballast water management systems that could inform implementation of the interim California standards in the future.

Based on the information in the Commission's report and taking into account the availability of U.S. Coast Guard-approved ballast water management systems to meet the federal discharge standards, staff recommends that the Commission direct staff to work with the Legislature to develop legislation to delay or change California's performance standards, or to consider other ways to prevent nonindigenous species introductions.

Another complicating factor is that California's authority to adopt or implement state-specific management requirements or standards for ballast water discharge will soon be preempted by VIDA and its implementing regulations. In the meantime, the next implementation date for the interim standards is nearing, and California must change the law so that vessels are not prematurely out of compliance owing to circumstances beyond their control. The authorization sought in this item will enable staff to work with the Legislature to amend the law in a way that addresses the issues that are raised in the Commission's recent report, while ensuring that California law is scrupulously protective of California's marine waters.

Staff also recommends authorizing the Commission to sample ballast water and biofouling for research purposes, which will provide critical data that will best position California to participate in the U.S. EPA rulemaking process. Existing law authorizes staff to sample ballast water and sediments and biofouling to assess compliance with the Marine Invasive Species Act, but not for research purposes. This limits the Commission's ability to collect valuable information about the performance of biofouling management technologies and ballast water management systems, information that is critical to assess the real-world operational capabilities of these technologies.

Lastly, staff recommends changing the definition of Pacific Coast Region to mirror requirements for the Pacific Region in VIDA. Existing law, Public Resources Code section 71200, subdivision (k), defines the Pacific Coast Region as "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." Under VIDA, additional ballast management exchange requirements are established for vessels arriving at a port or place of destination in the Pacific Region coming from a port or place "north of parallel 20 degrees north latitude, inclusive of the Gulf of California." This change is in line with the best available science on the biogeography of the region and relative risk of species introductions to California ports.

OTHER PERTINENT INFORMATION:

This action helps fulfill Strategic Goal 1.1, Key Action 1.1.3 of the Commission's Strategic Plan. This Action calls for staff to implement ballast water discharge performance standards and biofouling management strategies that prevent the introduction of nonindigenous species into state waters.

RECOMMENDED ACTION:
It is recommended that the Commission:

Staff recommends that the Commission direct staff to work with the Legislature to develop legislation relating to California's ballast water discharge performance standards, authorize the Commission to sample ballast water and biofouling for research purposes, update the definition of Pacific Coast Region, and make various technical, code cleanup changes to the Marine Invasive Species Act.