Commercial Shipping Impacts on Water Quality and Invasive Species Introductions

In 2011, there were 360 commercial ports in the US that accept international good worth close to $2 trillion. In order to accomplish this, there are more than 100,000 ships at sea ferrying all these products and constantly crossing the world's oceans. Daily operational discharges from these ships represent one of the largest human inputs of pollutants into the marine environment.

- Ships release oil, nutrients, toxics, and even sewage via operational discharges which result in negative environmental impacts.
- Ships release ballast water which contains diseases, bacteria, and invasive species from foreign ports. Ballast water is used to stabilize the vessel and compensate for changes in the ship's weight as cargo is loaded or unloaded. When these organisms survive transport in ballast tanks from locations all over the globe, they are released into our waters and some thrive in the new environment causing documented devastation to our coastal and aquatic.
- Ships release oil during every day operation through the discharge of bilgewater, the washing down of decks, and the leakage from oil to sea interfaces. Operational releases are estimated to be even higher than accidental oil spills. Oil in the marine environment causes damage to marine life, terrestrial life, human health, and natural resources.
- Ships can release untreated gray water- wastewater from sinks, dishwashers, showers, and laundries, basically anything that would ordinarily go down your household drain. Grey water can contain many of the same pollutants that sewage does including pathogen bacteria such as fecal coliform.
- Ship discharges can include metals, detergents, suspended solids, and solvents from engines, piping, and mechanical sources.
- Ship hulls can leach significant amounts of copper causing exceedance of water quality standards. Although copper is essential to life, serious damage to organism function can occur at elevated concentrations.
- Ships are not required to monitor or report what they release. As a result, we don't actually know how much pollution is discharged by ships all over the world.

Ship discharges pose a long-term and substantial threat to both marine and coastal ecosystems. Environmental laws have not kept pace with the growth of the shipping industry, and new laws and standards are urgently needed. It's time to protect our waters from Maritime industry and ship pollution.

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