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TWENTY-FIRST ASSEMBLY DISTRICT

ASSEMBLY BILL (AB) 1798: The S.A.L.M.O.N. Act Saving Aquatic Life from Manufactured Oxidized Nano-chemicals

SUMMARY

The S.A.L.M.O.N. Act will require the Department of Transportation (Caltrans) to develop and implement a regional strategy to eliminate 6PPD from its storm-water discharges into certain salmon and steelhead trout bearing surface waters of the state.

BACKGROUND

For over 20 years, researchers have seen a connection between storm-water discharge and salmon deaths. Known as the “urban runoff mortality syndrome” studies have shown that an incredible number of salmon die within a few hours after exposure to storm-water from urban watersheds near roadways. It was only in 2020 that researchers out of the University of Washington released a report that finally identified the toxic chemical responsible for the fish kills, 6PPD. According to the Department of Toxic Substances Control (DTSC), this chemical is found in “most if not all motor vehicle tires.”

6PPD is used in tires as an antioxidant, designed to react with oxygen and ozone to protect car tires from cracking. However, when 6PPD reacts with ozone, it transforms into 6PPD-quinone. Once washed into the environment, this chemical compromises a salmon’s blood-brain barrier, killing exposed fish within hours.

DTSC has officially listed motor vehicle tires containing 6PPD as a priority product pursuant to the Safer Consumer Products Regulations. This means that domestic and foreign manufacturers of motor vehicle tires that contain 6PPD and sold in California must begin searching for a safer alternative and other ways to replace this harmful chemical.

However, even if DTSC chose to completely ban tires with 6PPD, the millions of existing car tires on the road would continue to pollute this harmful substance. Further, tire particles are some of the most common sources of microplastics found in California’s storm-water discharges to waterways, which to date has gone completely unmanaged in storm-water permits. While DTSC’s Program is an excellent beginning to pollution source control, more must be done to protect salmon from this chemical.

PROBLEM

The main pollution pathway for 6PPD is through storm-water. 6PPD has been measured in California streams at concentrations above those shown to kill at least half of coho salmon in laboratory experiments-

Native salmon species represent the foundation for California’s \$500 million fishing industry. Thousands of fishers rely on salmon for their income and livelihoods. Recently, State officials canceled California’s 2023 salmon fishing season due to the incredibly low number of coho and Chinook salmon that are surviving to adulthood and returning from the sea.

The loss of coho salmon in California is having a domino effect across the entire ecosystem. Further, the decline of native salmon is disproportionately impacting California’s Indigenous tribes. For instance, the Yurok Tribe in Northern California typically celebrates their annual Salmon Festival to honor the sacred species. However, due to critically low numbers of salmon, the future of their festival, and culture is now in jeopardy.

Recovering California’s native salmon is a top priority for the Newsom Administration, and mitigating the impacts of 6PPD is an intersectional crisis touching on the three pillars of our Golden State: equity, environment and economy.

SOLUTION

Studies on the “urban runoff mortality syndrome” have found that biofiltration and bioretention systems, two readily available storm-water filtration management practices, effectively treat the runoff of 6PPD both in terms of toxic chemical exposure and salmon spawner survival.

Biofiltration is a biological-based technique employed to treat contaminated storm-water runoff. This is a pollution control method that Caltrans is already familiar with and has proven to be successful. Compared to industrial methods, biofiltration techniques are cost-effective, safe, and user-friendly. It does not produce a secondary pollutant, and it is effective at removing a suite of other pollutants from storm-water, including heavy-metals and microplastics.

The S.A.L.M.O.N Act aims to develop a programmatic environmental review process in order to prevent 6PPD from entering salmon and steelhead trout bearing surface waters of the state. This measure will direct Caltrans to study the feasibility and most cost-effective biofiltration and bioretention systems in order to install such systems throughout the state to prevent the devastating impacts caused by storm-water runoff containing 6PPD from entering into salmon and steelhead bearing waters.

SUPPORT

California Coastkeeper Alliance (Sponsor)