

Is Dredging the Solution or Part of the Problem?

Polychlorinated Biphenyls (PCBs) are chemicals that were commonly used by industry before being banned in 1979. These chemicals remain in the soil and sediment for decades before they dissolve into water, are released into the air, and are eventually decomposed by microbes or by reactions in the atmosphere.

Evaporation of PCBs may be the main pathway by which they are removed from water bodies. Instead of waiting an indefinite amount of time for PCBs to evaporate, some people recommend dredging to remove the sediment where PCBs hibernate. However, there are several problems with dredging. First, it is very expensive. Second, it could make the situation worse by releasing large amounts of PCBs into the water and atmosphere all at once.

Dr. Lisa Rodenburg, professor of environmental sciences, is attempting to settle this debate by gathering data about how long it takes PCBs to evaporate. Current models of pollutant evaporation are based on carbon dioxides, which may not behave like PCBs at all. To make an informed decision, environmental regulators need to be able to compare the relative risks of dredging versus the time required to allow the PCBs to evaporate naturally.

The data that Rodenburg is gathering will assist people in the Hudson River area to make better decisions about dredging. In addition, her data will be useful in places where similar questions are being raised in regards to other lakes and streams, including the Great Lakes and the San Francisco Bay.

The decision of whether to dredge or not has enormous social, political, and economic consequences for industry, the United States government, residents, and anyone who uses water for recreational purposes. You can help to ensure that these decisions are based on the most informed data possible by funding Dr. Rodenburg's research. Please contact The Office of Development at 732-932-9000, ext. 576 or development@sebs.rutgers.edu.

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