HUDSON RIVER
FOUNDATION

17 Battery Place
Suite 915
New York, NY 10004

212-HUDSONR
212-483-7667
(Fax) 212-924-8325
www.hudsonriver.org

SCIENTIFIC REVIEW OF CHANGES RESULTING FROM THE PCB SUPERFUND DREDGING OPERATIONS IN THE UPPER HUDSON RIVER

For several decades, one of the most intractable environmental concerns affecting the Hudson River has been the presence of PCBs in the River—in its water, its sediments and its biota. From its earliest years the Hudson River Foundation has sought continually to advance the scientific understanding of PCB contamination and its impacts throughout the Hudson River ecosystem. Most recently, after the completion of the six-year dredging project to remove highly contaminated sediments from the Upper Hudson River PCBs Superfund site by the General Electric Company (GE), the Foundation commissioned a panel of scientific experts to examine what is now known about the results of the dredging program. The report of the panel, *An Independent Evaluation of the PCB Dredging Program on the Upper Hudson and Lower Hudson River*, is presented here.

Over the past 35 years, the Foundation has sponsored numerous scientific investigations to understand the fate and effects of PCBs in the Hudson River and Estuary, particularly related to the Upper Hudson River Superfund site. In 2001, as the U.S. Environmental Protection Agency (EPA) was preparing the Record of Decision that ultimately required the dredging program, the Foundation convened another expert panel to review the scientific basis for remedial action. Since 2001, the Foundation has managed the comprehensive Contamination Assessment and Reduction Project (CARP), tracking the inputs, transport, and retention of PCBs (and other contaminants) within the entire Hudson River Ecosystem. Through CARP, which was initiated prior to the start of the Superfund dredging of the Upper Hudson River, large quantities of PCBs from the Upper Hudson were documented to be transported downriver and widely dispersed throughout New York Harbor. CARP models forecast that if PCBs were not remediated in the Upper Hudson, sediments and biota within the Hudson River Estuary and New York Harbor would continue to be contaminated for many additional decades.

A substantial amount of environmental data was collected before, during, and after the Upper Hudson dredging program by parties involved in the cleanup, which was completed in 2015. In 2016, the Foundation determined that it was time to begin an assessment of the changes in the ecosystem resulting from the cleanup. The primary goal of this assessment has been to review the project-related data to evaluate how PCB levels in water and fish of the Upper and Lower River have changed as a result of the dredging.

The Foundation convened a panel of independent scientists and engineers with particular expertise in organic chemistry, biochemistry, physics, geology and environmental modeling related to PCBs and the Hudson River. The panel was asked to review the data and report on its findings related to changes that may have occurred as a result of the dredging program.

The work of the panel and its preliminary conclusions were reported to EPA as the agency was preparing its Five-Year Review of the cleanup and in its development of plans for future monitoring. The final report is now available through the Foundation's website, http://www.hudsonriver.org/.

The Foundation recognizes that the panel's analysis is somewhat constrained by several factors: Dredging ended 18 months ago, and only a year's worth of post-dredging data was available to the panel; downriver responses may take a considerable amount of time to propagate and be detected; and after-dredging data covering various hydrologic conditions have yet to be collected. A fuller and more comprehensive analysis of the effects of the dredging will be possible as new data are collected and other evaluation tools, such as numerical models, are utilized in understanding the longer-term impacts and trajectories. The Foundation will continue to refine estimates of PCB loads to the Estuary and assess how those loads affect levels of PCBs in various media throughout the Estuary and Harbor in a new phase of CARP. If appropriate and useful, additional independent review of any newly acquired data and information may be conducted by the Foundation.