



PRIMER ON THE LISTING OF THE LOWER HACKENSACK RIVER AS A FEDERAL SUPERFUND SITE

On September 7, 2022, the United States Environmental Protection Agency named the Lower Hackensack River as a federal superfund site. The processing of the Superfund listing took seven years. The goal within the next two decades is to allow the public to catch and eat fish from the River. The federal superfund law is formally known as the Comprehensive Environmental Response Compensation and Liability Act of 1980, *42 U.S.C. 9601 (1980)* or CERCLA. The study of the River commenced in 2015 when the USEPA conducted a Preliminary Assessment of the Lower Hackensack River. The report was prepared by Ecology & Environment Inc. and was issued in September of 2015. The Preliminary Assessment was conducted to determine whether or not the Lower Hackensack River ranked for Federal Superfund designation. The Preliminary Assessment was conducted in accordance with the Superfund Regulations set forth at *40 CFR 300.420*. The purpose of the Preliminary Assessment was to determine the potential threat to public health or the environment posed by the River as well as the potential full release of hazardous constituents into the environment. The study was initiated in response to discussions, meeting and a letter issued by Captain Bill Sheehan, the Executive Director of the Hackensack Riverkeeper dated February 10, 2015. The petition stated that the Hackensack River from the Oradell Dam to its mouth in the Newark Bay warrants listing as a National Priorities List Site. New Jersey issued a letter endorsing the listing of the River in a letter dated July 23, 2021. The Lower Hackensack River is located in Bergen and Hudson Counties and covers approximately twenty municipalities. While the River originates in Rockland County, New York, the New Jersey portion of the Hackensack River is 32 miles from the State line to Newark Bay. Below Oradell Dam the River is tidally influenced. The portion of the River studied is located between the Oradell Dam at River mile 23.3 and the mouth of the River at River mile 0 in Newark Bay. The upper part of the River does not warrant listing and is not significantly impacted. The lower section of the River includes the Hackensack Meadowlands and several tributaries. The Hackensack Meadowlands District is over 5000 acres of emergent wetlands. There are over 17 tributaries to the Hackensack below the Oradell Dam.

Land Use within the study area included commercial uses, industrial land uses, public land uses and residential uses. A total of ten historic locations were identified adjacent to Lower Hackensack River. All ten are listed on New Jersey Register of Historic places. In early 20th century, the Lower Hackensack River became highly industrialized and sewage and pollution quickly came to adversely impact the River as well as the Meadowlands. By the 1920's, there was a ban on bathing in the River due to pollution concerns.

Most of the responsible sources that caused the sediment contamination of the River is unknown, however there are nine Superfund Sites within a mile radius of the Hackensack River. They include the Standard Chlorine Chemical Site, PJP Landfill, Ventron/Velsicol (also within the Berry's Creek Study Area), Scientific Chemical Processing, Universal Oil Products, SYNCON



Resins, Diamond Alkali, Diamond Head Oil Refinery and the Maywood Chemical Company.

The Preliminary Assessment and Site Investigation Reports prepared by EPA were completed in an effort to understand the nature of the contamination found in the River. USEPA conducted an Environmental Record Search of the Lower Hackensack River through a company known as Environmental Data Resources or EDR. This company is commonly used in due diligence processes such as Phase I's to determine what environmentally impaired sites are located within a certain radius of the site being investigated. The EDR search shows sites that are historically contaminated, businesses that use hazardous materials, active contaminated sites that are currently under remediation and those that have active environmental permits. The report shows a mapping of these sites as well as very detailed information on these sites. While initially thousands of sites were found, they were narrowed down to identify sources with potential of sediment contamination. Only sites adjacent to the River (within 500 feet) or its tributaries were evaluated as sources. A considerable amount of data was collected to identify contaminants in the sediments and surface water of the Lower Hackensack River. The EPA narrowed the contaminants under the study to metals including cadmium, lead, mercury, dioxin, benzopyrene, dibenzoanthracene, pcb's and deldrin (a pesticide). USEPA considered studies by the U.S. Army Corp. of Engineers and the U.S. Fish and Wildlife Service in the early 2000's that showed the degradation of the wetlands in the Meadowlands.

The study that lead to the Superfund listing concluded that the subject area has endured years of resource extraction, habitat loss, alterations and degradation. Sewage and pollution quickly began to affect the River. Enumerable historical sources of contamination to the Hackensack River are expected to have existed over the River's long history of industrial and commercial use. The environmental record sources studied showed that approximately 653 potential facilities and 268 potential Site Remediation Program Sites may be sources of contamination to the River. [\[1\]](#) The nature of the tidal influence on sediments in the River caused both upstream and downstream migration of contaminants. The area of contaminated sediments appears to extend from approximately south of the mouth of Overpeck Creek to the mouth of the Hackensack River. The Hackensack River supports sports fishery and contains wetlands and habitat for several environmental receptors, including spawning areas, and State wildlife management areas. As a result of the contamination, several fisheries have closed from the study area, including those for blue crab, white perch, American eel and several other fisheries have issued consumption restrictions.

The EPA study has documented the impact to the River. The next step in the process will be identifying those potentially responsible parties. The potentially responsible parties are set forth in *42 U.S.C. 9607*. They include owners and operators of the site that caused the discharge, the current owner of the site that caused the discharge, transporters of materials that result in the discharge and those parties who arranged for the disposal of the materials that discharge. There are limited defenses to these potentially responsible parties. USEPA will issue general notice letters to those potentially responsible parties as well as CERCLA 104 E requests to obtain more information to connect discharges at those facilities to the Hackensack Superfund Site to continue its enforcement efforts.



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The group of potentially responsible parties which will include municipalities and sewage authorities that discharged to the River will likely band together as a potentially responsible party group and conduct a Remedial Investigation and Feasibility Study which is the next step in the remediation process to document the extent and nature of the contamination in accordance with the CERCLA regulations set forth at *40 CFR 300.430*. Once that remedial investigation/

feasibility study is completed, a Remedial Design will be evaluated in accordance with *40 CFR 300.435*. The likely remedy for the Hackensack River will be dredging or encapsulation of the contaminated sediment. This remedial option has been selected for the Passaic River and the Berry's Creek Study Area. Those remediations are projected to cost approximately \$1 billion and \$350 million respectively. This process will take several decades and it will be that length of time prior to implementation of the remedy.

Due to the significant sedimentation, the River is barely navigable, however, fish do thrive in the River and the Bald Eagle has returned to the River after several years of compromise from exposure to DDT. The River is quite a treasure and I encourage members to take an Ecotour captained by Riverkeeper Bill Sheehan to understand the legacy of the River and all it has to offer.

[1] An online database search can determine whether a property is a known contaminated site or regulated facility by conducting searches on the state and federal databases at <https://njems.nj.gov/DataMiner> and <https://enviro.epa.gov> respectively.