Pros- constant monitoring of the different areas of the water

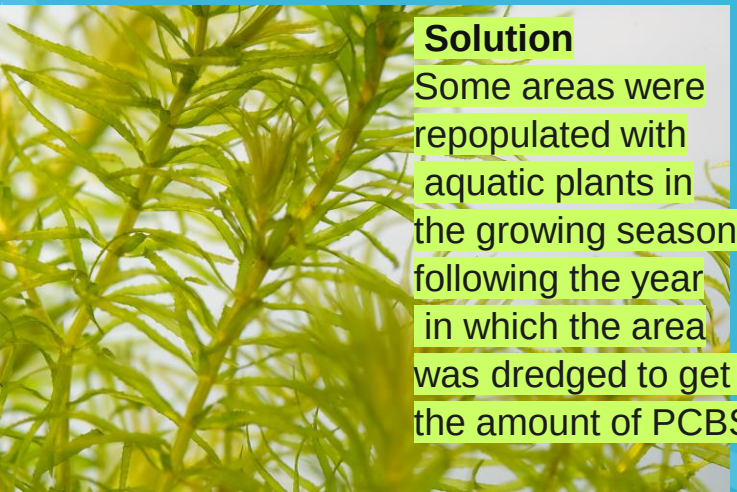
Cons-It is not at the speed and efficiency that it should be in order to eliminate the amount of PCBS in the water

Hudson River, Piermont NY

Specific Cause -for 30 years ending in the late 1970s, the General Electric Company discharged as much as 1.3 million pounds of polychlorinated biphenyls (PCBs) into the Hudson River

PCB - $C_{12}H_{10-x}Cl_x$
Polychlorinated biphenyls also known as PCBs are highly carcinogenic chemical compounds, formerly used in industrial and consumer products.

Other Solutions
Operation, Maintenance and Monitoring Program
Water Column Monitoring
Sediment Monitoring
Fish Monitoring
Habitat Monitoring
Caps Monitoring



Solution
Some areas were repopulated with aquatic plants in the growing season following the year in which the area was dredged to get rid of the amount of PCBS

Environmental Education
- Inform the public of the health risks of PCBs
- Provide the benefits of river clean water
- Vote to ban chemical dumping into the Hudson River

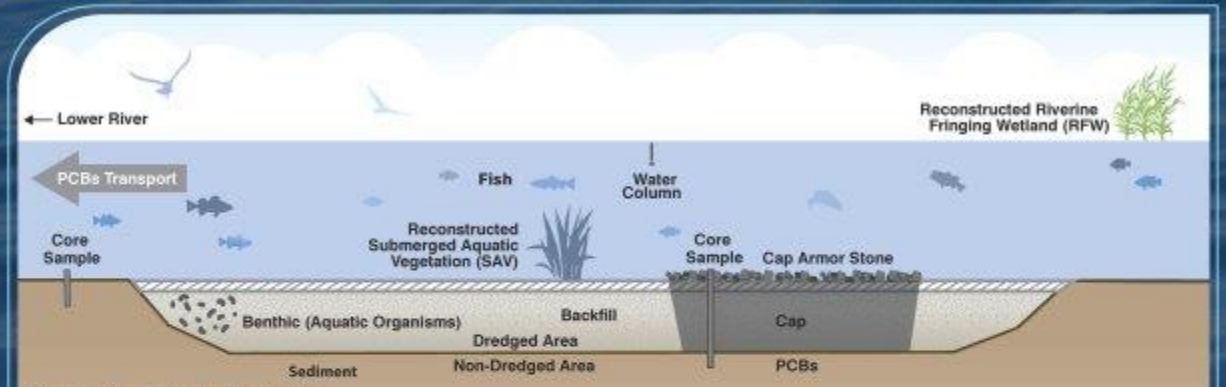
Environmental Science
- The EPA should test sediments annually in the dredged and non-dredged sediment areas
- Report and publish the PCB concentrations (5-year testing is not enough

Remediation Engineer
- Create a plan to restore and maintain the Hudson River to meet State and Federal Regulations

Hudson River PCBs Superfund Site

Looking Ahead
Long-term River Monitoring Program

EPA



Types of Long-term Monitoring

Water Column Monitoring

- **Objective:**
  - Assess PCB concentrations throughout the Upper and Lower Hudson River and monitor PCB transport from the Upper Hudson River to the Lower Hudson River.
- **Monitoring:**
  - Sampling various locations in the Upper and Lower Hudson River on a regular basis. EPA expects water column monitoring to continue into the foreseeable future.

Habitat Monitoring

- **Objective:**
  - Restoration of the function of river habitats.
- **Monitoring:**
  - Evaluation of habitat begins immediately after planting is completed.
  - Each habitat type will be evaluated including submerged aquatic vegetation (SAV) and riverine fringing wetland (RFW).
  - Criteria has been established for each habitat type.
  - Aquatic organisms in dredged areas are monitored.

Fish Monitoring

- **Objective:**
  - Assess PCB concentrations within various fish species throughout the Upper and Lower Hudson River. The New York State Department of Environmental Conservation and New York State Department of Health establish the fish consumption advisories and fishing restrictions.
- **Monitoring:**
  - Fish samples will be collected at various locations throughout the Upper and Lower Hudson River for the foreseeable future.

Sediment Monitoring

- **Objective:**
  - Assess PCB concentrations over time in the sediment throughout the Upper Hudson River in dredged and non-dredged areas.
- **Monitoring:**
  - Sediment samples will be collected in dredged and non-dredged areas. The results will be compared to previously collected samples.

Cap Monitoring

- **Objective:**
  - Assess long-term effectiveness of caps that were placed on the river bottom to isolate PCBs that remained after dredging.
- **Monitoring:**
  - Surveys will be conducted to evaluate the cap at one, five, and ten years after the cap was put into place and will continue at ten-year intervals in perpetuity.
  - Surveys will take place after high flow events.
  - Core samples of the caps will be collected in specified locations ten years after the completion of dredging and will continue at ten-year intervals.

Sources

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