

RORY M. CHRISTIAN Chief Executive Officer

September 25, 2025

VIA EMAIL

Hon. Michelle L. Phillips Secretary to the Commission 3 Empire State Plaza Albany, NY 12223-1350

Re: Matter No. 21-01188 – In the Matter of the Indian Point Closure Task Force and Indian Point Decommissioning Oversight Board.

Dear Secretary Phillips:

Please accept for filing in the above-captioned matter, Hudson River Foundation's September 25, 2025 presentation to the Indian Point Decommissioning Oversight Board. Should you have any questions regarding this filing, please contact me. Thank you.

Respectfully submitted,

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Tom Kaczmarek Executive Director

Indian Point Decommissioning Oversight Board

# Hudson River Biological (Ecosystem) Monitoring Program Updates

September 25, 2025



Jonathan Kramer, Hudson River Foundation <a href="mailto:Jkramer@Hudsonriver.org">Jkramer@Hudsonriver.org</a>

James Lodge, Hudson River Foundation <u>JLodge@Hudsonriver.org</u>

# **Hudson River Biological Monitoring Program (HRBMP)**

#### **A Brief History**

- 1965 1981 A series of lawsuits and regulatory disputes related to the Storm King Proposal and Hudson River Power Plant impacts on the River
- 1981- Hudson River Settlement Agreement (HRSA)
  - Abandoning the Storm King project
  - Maintaining a moratorium on power plant construction beyond the proposed units
  - Funding a river wide biological monitoring program (HRBMP), 10 years at a minimum cost of \$2.0M /year.
  - The monitoring program continued with funding from the Utilities until 2018.

#### **HRBMP** was designed to:

- Evaluate the effectiveness of mitigation measures to reduce entrainment, barrier nets and screens, and Striped Bass stocking.
- Monitor impingement and entrainment abundance and survival at Bowline Point, Roseton, and Indian Point.
- Monitor the status of Hudson River fish populations as ichthyoplankton, juveniles, and adults.

## **Hudson River Foundation**

The Hudson River Settlement Agreement provided \$12M to establish an independent institution to sponsor scientific, economic and public policy research on matters of environmental, ecological and public health concern — forming the Foundation

We inspire and inform action through science and engagement to achieve a healthy and resilient Hudson River for nature and people.

 Since 1981 these settlement funds have supported hundreds of research projects totaling over \$42M

#### **Managed Programs:**

- Hudson River Ecosystem Monitoring Program
- Champlain Hudson Environmental Trust
- Sturgeon Research Net Conservation Benefits Program
- Contamination Assessment and Reduction Program
- Lower Esopus Stream Management Program
- NY/NJ Harbor & Estuary Program

Committed to insightful, engaged program management and fiduciary oversight in service of the distinct goals of each of these programs

# **Indian Point Community Fund**

In 2022, the Indian Point Community Fund provided the Hudson River Foundation with \$6.5M to work with DEC and other fisheries scientists to restore key portions of the HRBMP and develop a new, more comprehensive monitoring program – The "Next Generation" Hudson River **Ecosystem** Monitoring Program (HREMP)

## **Programmatic Objectives:**



Collect key data on the Hudson River ecosystem that build on the historic data sets

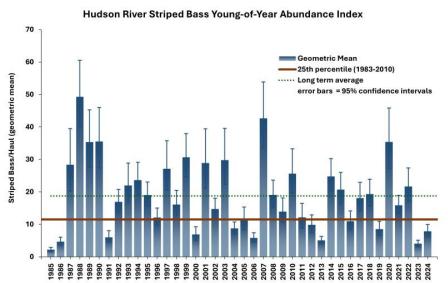


Develop, test, and optimize a new Hudson River Ecosystem Monitoring Program



Implement the "Next Generation" HREMP and secure long-term funding/support to continue the monitoring program into the future





## Monitoring fish populations in the Hudson River

## Fall Juvenile Survey (FJS)

Provides data on the status of juvenile fish in the Hudson

- Supports understanding of reproduction and abundance for key species
- Compliments other DEC fisheries monitoring programs (Alewife, American Shad, Blueback Herring, Striped Bass, Atlantic and Shortnose Sturgeon)
- 1974 2020 Utilities Historical Monitoring Program
- 2023-ongoing HREMP & DEC support

Why it's Important: Juvenile fish are early predictors of reproductive success and abundance. These data driven indicators are essential for supporting policy decisions for managed fisheries





Image Credits: Normandeau Associates

River Region	River Kilometer	
	226-245	1
12	200-225	1
11	172-199	
10	151-171	<b>f</b> .
9	138-150	7
8	123-137	
7	99-122	
6	89-98	1
5 5	75-88	7
4	62-74	7
3	54-61	
2	38-53	
1	19-37	J No.
0	0-18	

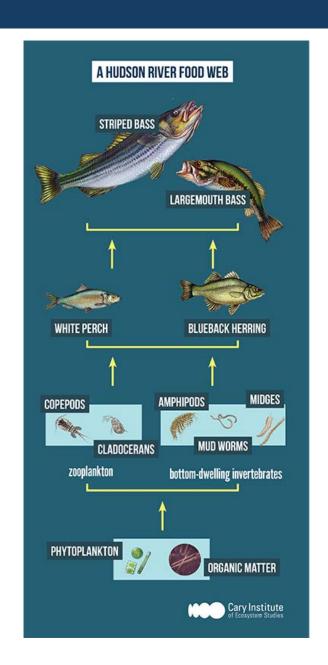
## Monitoring the Base of the Food Web

### **Lower Food Web Survey**

Provides essential data on the small plants and animals at the base of the food web, including phytoplankton, zooplankton, bivalves, and other invertebrates

- 1987 2015 Cary Institute's long-term monitoring of the Hudson's lower food web
- 2023 and ongoing HREMP support
  - River wide monthly sampling from the (Battery to Troy

Why it's Important: These data provide the basis for us to understand how changes in the ecosystem (e.g., temperature, precipitation, invasive species. etc.) will alter the Hudson's ecosystems



# Designing the "Next Generation" Hudson River monitoring plans

- Historical data management and analysis (Stony Brook University)
- Synthesis of historical and new data (Cary Institute)
- Next generation HREMP Survey. Sampling design considerations and optimization
  - Exploration of novel data collection and analysis methods (Cornell University)
- Data Distribution and Visualization

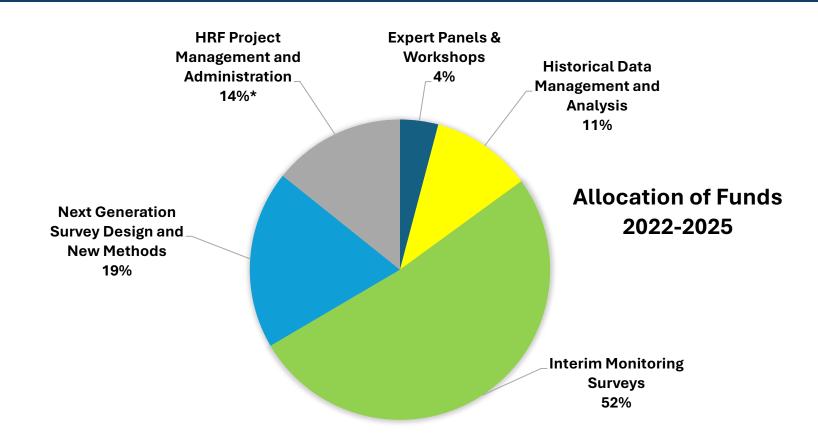
Why it's Important: Designing a robust, efficient, and cost-effective HREMP is essential for securing long-term funding to provide the data needed to understand and react to changes to the ecosystem







# **Hudson River Ecosystem Monitoring Program (HREMP)**



#### **Expenditures and Investment Income Summary**

Initial Allocation	\$6,500,000
Investment Interest	\$424,713
Allocations throughs 2025	\$2,230,872
Balance	\$4,693,841

# **Moving Forward**

# Providing data and analyses to serve the needs of Hudson River fisheries managers and a broad community interested in this information

- Monitoring is essential to understanding longterm trends and short-term (year-to-year) variations.
  - Building on the unprecedented 40-years of historical data
- An important resource to help us understand the changing HR ecosystem
- Designing the revised/optimized "next generation" HREMP
  - Ensure sustained funding for this program
  - Key part of a comprehensive system of monitoring efforts throughout the Hudson watershed



