



**BROOKHAVEN**  
NATIONAL LABORATORY



AN OPEN LETTER TO OUR NEIGHBORS

# About the Peconic River



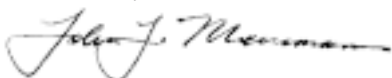
Dear Neighbor,

Many of our neighbors have voiced concerns about possible contamination of the Peconic River by Brookhaven National Laboratory. In response to those concerns, the Laboratory has conducted extensive testing of the river water and sediment. The most recent testing included significant input from the community in developing a plan. Several community members observed the sampling process and split samples were provided to federal, state and local agencies for independent testing.

The results of this and prior samplings indicate that the Peconic River sediments beyond the boundaries of Brookhaven National Laboratory contain small amounts of chemical and radioactive materials due to past operations. All are within safe levels established by the responsible local, state and federal regulatory agencies. Based upon the results, cleanup of the off-site portions of the Peconic River is not expected. Some portions of the river on-site are expected to require cleanup of heavy metals to eliminate any potential risk to the ecosystems of the Peconic River.

We realize that, as a concerned citizen, you may have questions for us about the sampling process and the results. We have tried to anticipate and respond to some of those questions here. We know that you may have others, so we are providing opportunities for you to reach us to obtain more information. Details on how to reach us are listed at the end of this brochure.

Sincerely,



*John Meersman, Manager*

Environmental Restoration Division

Brookhaven National Laboratory



Discharge point from the BNL Sewage Treatment Plant into the Peconic River.



Sampling the Peconic, with a representative of the Suffolk County Department of Health Services.



Community members observing Peconic sampling.

community involvement  
extensive sampling  
compliance with standards

# About the Peconic River

## 1. Did past operations at Brookhaven National Laboratory impact the Peconic River?

Yes. The Laboratory has maintained compliance with discharge limits from its sewage treatment plant throughout the years of operation. Since the Laboratory first started operating in 1947 many standards have changed, and accordingly, so have our operations. Sampling of Peconic River sediments over the past few years has revealed a variety of materials in the river sediments. Among these, mercury, silver and polychlorinated biphenyls (PCBs) were significant enough to warrant proposed cleanup of on-site portions of the river. Low levels of radionuclides, primarily cesium-137, were also found and the cleanup of the heavy metals is expected to remove most of these. Off-site, the levels of all materials are well below those requiring cleanup.

## 2. Is the Peconic River safe for use by the public?

The levels of heavy metals and PCBs detected in the Peconic River beyond the site boundary are within safe levels established with the U. S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC).

Radionuclides detected may contribute from zero to a three millirem dose per year to an off-site resident. This is in comparison to EPA guidance for allowable radiological dose of up to 15 millirem per year above background. The average annual dose to people on Long Island as a result of background sources such as cosmic rays and soils is about 300 millirem per year.

## 3. Is there plutonium from BNL in the Peconic River?

Levels of plutonium detected in Peconic River sediments are similar to those expected to be found due to fallout that occurred in the 1950s and '60s. There is some evidence that very small amounts of plutonium were released from Brookhaven National Laboratory. The Connetquot River sediments, used for comparison purposes, averaged 0.03 picocuries per gram of plutonium. The Peconic River sediments downstream of Schultz Road levels were 0.04 picocuries per gram. Between the Laboratory boundary and Schultz Road the level was 0.06 picocuries per gram. The maximum value observed off Laboratory property was 0.15 picocuries per gram. On-site portions of the river averaged 0.09 picocuries per gram. The EPA, imposing

the most protective estimates for exposure, has established that plutonium levels in the environment above 2.44 picocuries per gram could require further analysis.

## 4. Are fish caught in the Peconic safe to eat?

Fish sampled off site in the Peconic River pose no hazard to wildlife or to human health. Recent statements from the NYSDEC have reinforced this. On-site fish, as a result of the heavy metals, could pose a threat to wildlife that consumes them.

## 5. What opportunities do I have for input on the decisions to be made about cleanup?

Brookhaven National Laboratory does plan to cleanup the Peconic River. Alternatives being considered for cleanup will be presented in the Operable Unit V Proposed Plan. BNL will announce and hold a public comment period on the plan once it is finalized. This is anticipated for November. The public comment period will include information sessions, an opportunity to speak with our technical staff, and methods to provide input on the proposed cleanup.

## Where can I get additional information about Peconic Sampling?

### ■ Attend an information session:

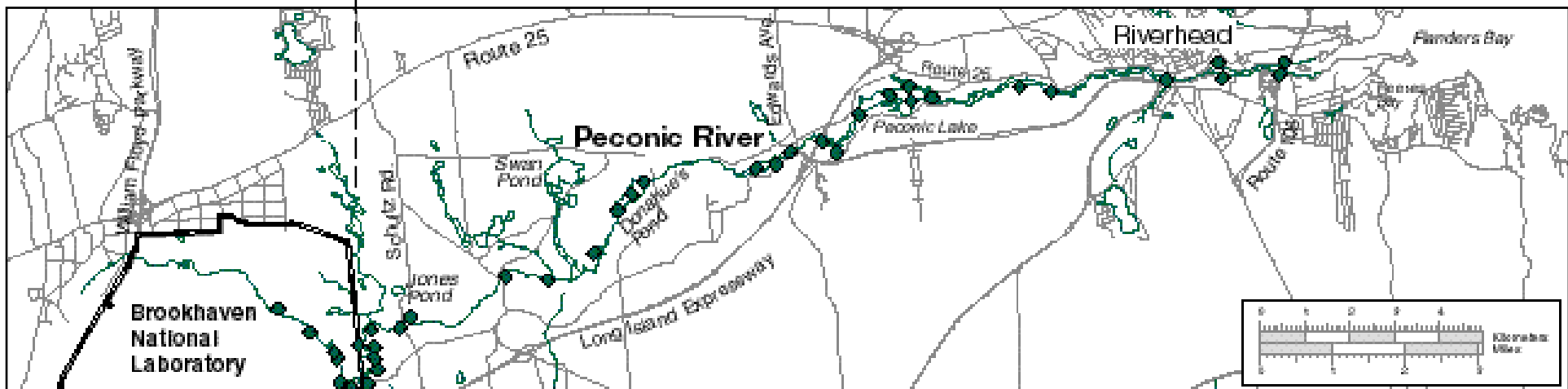
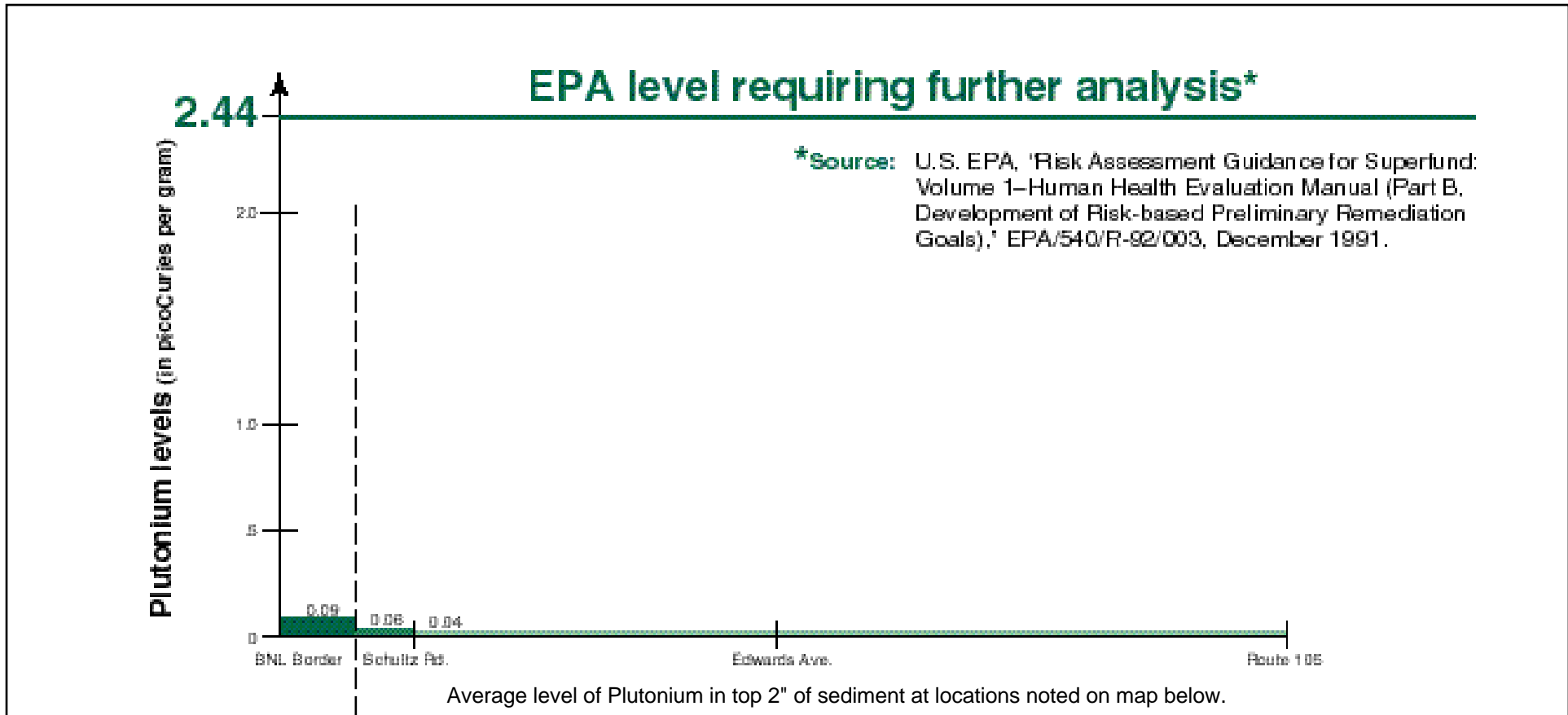
October 16, 1999 10:00 a.m. - 3:00 p.m. Berkner Hall, BNL	October 19, 1999 7:00 - 9:00 p.m. Riverhead High School	October 21, 1999 7:00 - 9:00 p.m. Riverhead Middle School
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### ■ Contact:

Ken White (516) 344-4423	Eloise Gmur (516) 344-6336	John Carter (516) 344-5195
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What was Sampled in the Peconic River	Number of Locations	Number of Total Samples
sediment	73	173
surface water	7	11
fish	4	17

# Peconic River Sediment Sampling Locations and Plutonium Levels Found



◆ Diamonds represent one or more sample locations.