United States Environmental Protection Agency

Cleaning Up the Lower Passaic River

EPA's Plan to Clean Up the Lower Eight Miles | March 2016

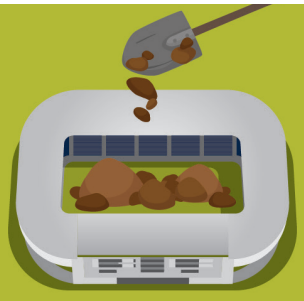
The Plan to Clean the Passaic River

A century of industrialization throughout the Passaic River watershed has left behind toxic muck on the bottom and banks of the river. Many chemical products, including the herbicide Agent Orange, were manufactured in facilities located adjacent to the Passaic River. Approximately 90 percent of the volume of contaminated sediments is located in the river's lower eight miles. Concentrations of contaminants have declined minimally in the last 20 years. No one should eat fish or crab caught from the Lower Passaic River.

On April 11, 2014, the EPA proposed a cleanup plan for the lower eight miles of the river. The proposed plan was released for public review and a four-month comment period. EPA received and reviewed more than a thousand comments from a diverse cross section of the public. After carefully considering these comments, EPA has finalized its decision on a cleanup plan. EPA's final plan will protect communities along the Passaic River by reducing the contaminants in fish and crab that pose unacceptable risks to human health and the environment.

What is included in the cleanup plan?

- The entire lower eight miles of the river will be capped bank-to-bank. With the cap in place, the contamination in the sediment will be prevented from entering the food chain, thereby decreasing health risks to people who eat fish and crab from the lower eight miles of the river. The cap will isolate the contaminated sediment, effectively eliminating the movement of a major source of contamination to the rest of the river and Newark Bay.
- Before the cap is placed, 3.5 million cubic yards of contaminated sediment will be removed, bank-to-bank, by dredging the river bottom from Newark Bay to the Belleville/ Newark border.
- This will result in the permanent removal from the river of approximately 13 pounds of highly toxic and persistent dioxin (2,3,7,8- TCDD), 24,000 pounds of mercury, 6,600 pounds of PCBs, and 1,300 pounds of DDT (a pesticide).
- Sediment will be dewatered locally and transported off-site for disposal.
- The estimated cost of the remedy is $1.38 billion.



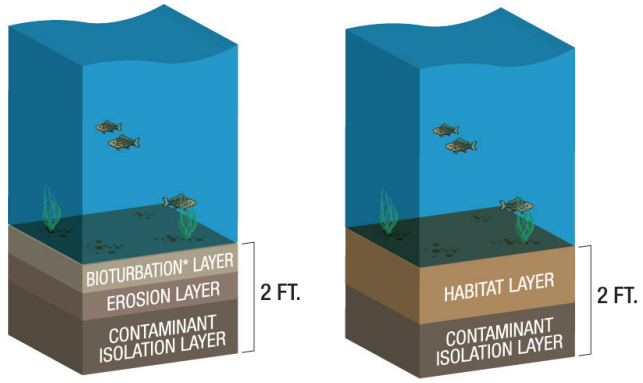
3.5 Million Cubic Yards
is enough to fill the Red Bull Arena three times.

One cubic yard
is roughly the size of a standard dishwasher.

THE COMPLETE RECORD OF DECISION INCLUDING ALL OF EPA'S RESPONSES TO COMMENTS IS AVAILABLE AT **WWW.OURPASSAIC.ORG**

What is a “cap” and how will it work?

- The engineered cap is a physical barrier primarily made of sand and stone. The cap will be placed over the river bottom to isolate the contaminated sediment remaining after dredging.
- With the cap in place, the contamination in the sediment will be blocked from entering the food chain, thereby decreasing health risks to people who eat fish and crab from the lower eight miles of the river.
- The cap will not cause or contribute to additional river flooding.
- Dredged mudflats will be reconstructed to their original grade with an engineered cap that will consist of one foot of sand covered by one foot of material that will restore the mudflat habitat, so the water-dwelling creatures can return.
- After the project is completed, monitoring and maintenance of the engineered cap will be performed on a regular basis and after significant storms.



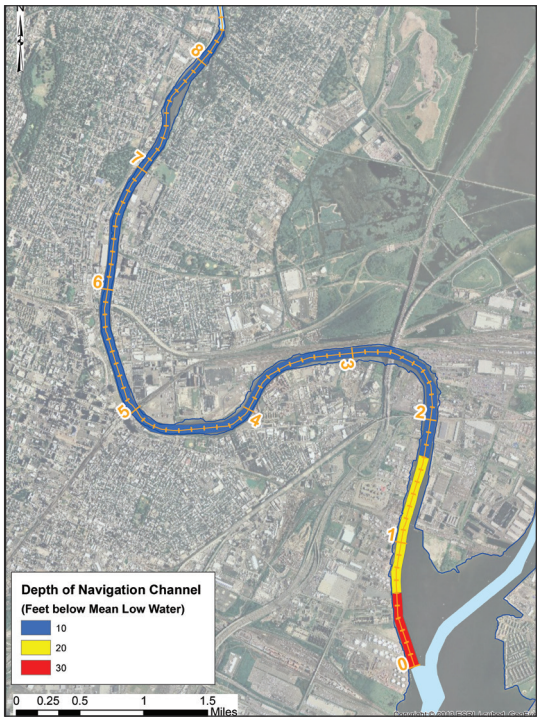
SAND CAP CONCEPT

MUDFLAT RECONSTRUCTION CONCEPT

*THE DISTURBANCE OF SEDIMENT BY LIVING ORGANISMS.

Where will the dredging take place?

- Dredging approximately 5 to 15 feet of contaminated sediment in the navigation channel in the 1.7 miles of the river closest to Newark Bay and approximately 2.5 feet everywhere else in the lower eight miles.
- In River Mile 0 (where the river meets Newark Bay) to River Mile 0.6 (north of Wilson Avenue): Dredging to a depth of 33 feet and capping, resulting in a navigation channel that is 30 feet deep.
- From River Mile 0.6 to River Mile 1.7 (just south of the Route 1/9 Lincoln Highway Bridge): Dredging to a depth of 25.5 feet and capping, resulting in a navigation channel that is 20 feet deep.
- From River Mile 1.7 to River Mile 8.3: Dredging enough sediment so that the cap will not cause any additional flooding (approximately 2.5 feet).



Passaic River Lower Eight Mile Navigation Channel Depth

What is the difference between the final cleanup plan and the proposed plan?

Based on comments received on its proposed cleanup, EPA modified the April 2014 proposal to bring the final cleanup plan in line with current and reasonably anticipated future commercial uses of the Lower Passaic River, while maintaining the level of protectiveness of the earlier cleanup proposal.

Differences include:

- The final plan will remove 0.8 million cubic yards less material from the river than the April 2014 cleanup plan proposed removing. This difference is due to a reduction in the amount of dredging that will be performed in the federal navigation channel.
- The final cleanup plan will be easier to implement while being just as protective of human health and the environment as the proposed plan.
- The final cleanup plan estimate is $350 million less than the April 2014 proposed plan, bringing the estimated cleanup costs down from $1.73 billion to $1.38 billion.


BELLEVILLE TWP
Belleville Tpke
LYNDHURST TWP
8.3
8.1
8
Railroad Crossing
NORTH ARLINGTON BORO
BERGEN
HUDSON
7
KEARNY TOWN
Railroad Crossing
EAST NEWARK BORO
Central Avenue
6
I-280
Railroad Crossing
Bridge Street
HARRISON TOWN
NJ Turnpike
3
HUDSON
ESSEX
Railroad Crossing
5
4
Railroad Crossing
Jackson Street
US 1
2
US 1 Truck
NEWARK CITY
1
Railroad Crossing
JERSEY CITY
0
LOWER EIGHT MILE CLEANUP AREA
Navigation Channel Centerline
Municipal Boundary
County Boundary
Bridge
Highway
Primary Road
Railroad
0 500 1,000 2,000 3,000 4,000 Feet

When will the cleanup begin?

- Now that the cleanup plan has been selected, EPA will immediately begin discussions with those responsible for the contamination to seek their performance of or payment for the cleanup work.
- Once the legal process concludes, the design of the activities necessary to carry out the cleanup will be outlined in a legally binding document. EPA expects that the design will take three to four years to complete.
- The dredging, dewatering and disposal of dredged materials and related construction work will follow and is expected to take six years to complete.

What will be done to protect residents and their quality of life during the cleanup?

- Before the cleanup begins, the EPA will develop health and safety plans to protect both the workers and residents in neighboring communities. A Community Health and Safety Plan will be developed with input from local community members.
- Air and water will be monitored during cleanup work. If monitoring results indicate that air or water quality standards exceed, or may be exceeded unless action is taken, the related construction activity will be evaluated, halted if necessary and additional protective measures will be implemented.
- The EPA is committed to working with residents, businesses, community groups and local officials to ensure that the cleanup is completed in a way that is protective of public health and minimizes potential impacts to river users and communities along the river.

Will the public have a say in design plans and cleanup work?

- The public can provide feedback to the EPA anytime through written communication and/or informal discussion with agency staff. Contact information is provided below. In addition, the public is encouraged to attend the Passaic River's Community Advisory Group (CAG) meetings. The CAG, which has been meeting since 2008, serves to facilitate communication between the diverse interests of the community and the EPA so that community concerns and viewpoints can inform EPA's decision-making process.

Please visit **www.ourpassaic.org** for more information.

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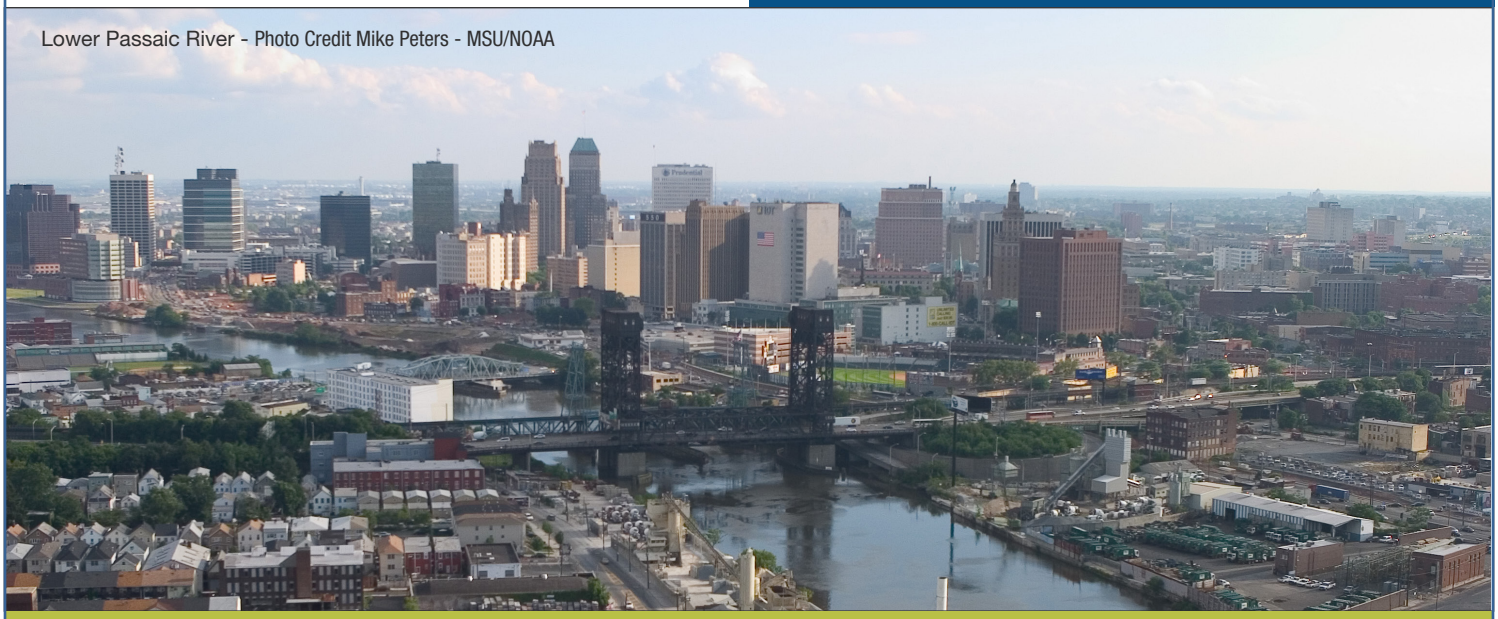

Lower Passaic River - Photo Credit Mike Peters - MSU/NOAA