



EPA's final cleanup plan for the Gowanus Canal Superfund Site

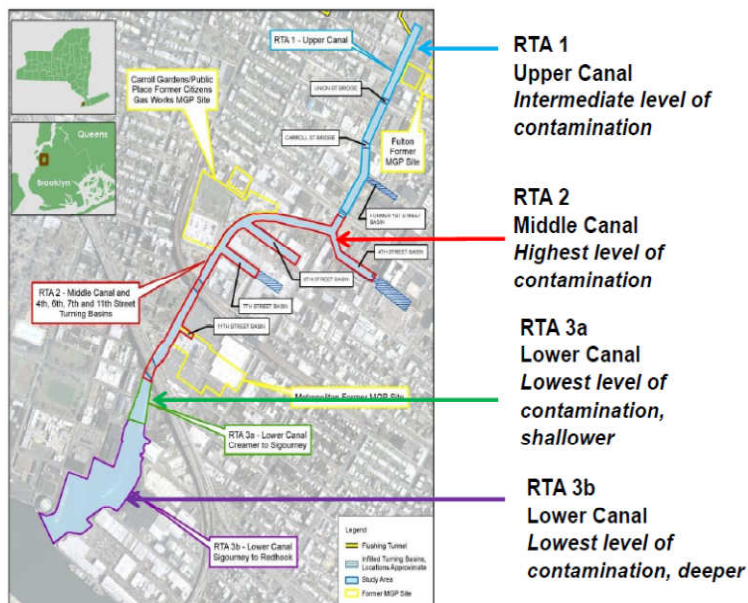
WHAT'S IN THE PLAN?

- Removing contaminated sediment from the bottom of the canal by dredging
- Capping the dredged areas
- Implementing controls to prevent combined sewer overflows from compromising the cleanup
- Excavating and restoring approximately 475 feet of the former 1st Street Basin and 25 feet of the former 5th Street Basin
- Treating the dredged sediment at an off-site facility
- Estimated cost - \$506 million

HOW MUCH SEDIMENT WILL BE REMOVED?

- 307,000 cubic yards of highly contaminated sediment from the upper and middle segments
- 281,000 cubic yards of contaminated sediment from the lower segment.
- The upper segment runs from the top of the canal to 3rd Street
- The middle segment runs from 3rd Street to just south of the Hamilton Avenue Bridge
- The lower segment runs from the Hamilton Avenue Bridge to the mouth of the canal

Remediation Target Areas (RTAs)

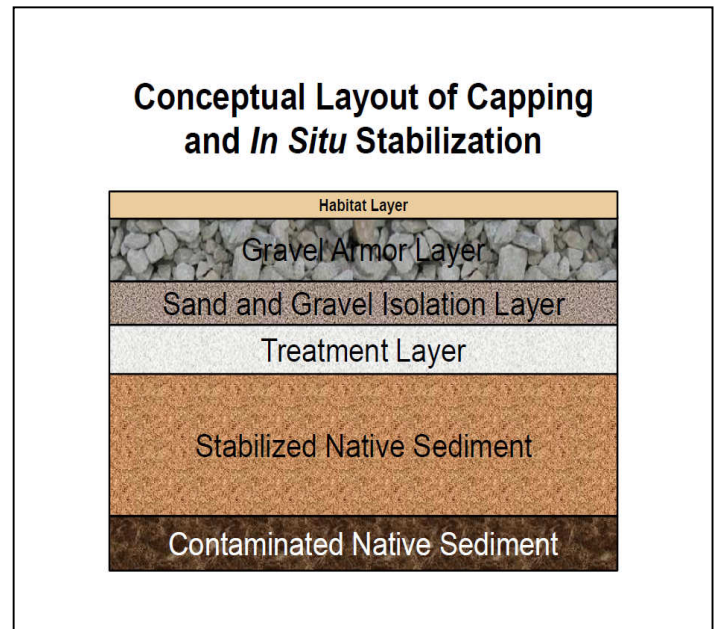


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WHAT KIND OF “CAP” WILL BE PLACED IN THE CANAL?

- A multi-layer cap will be placed in dredged areas of the canal to isolate the contamination that will remain in the native sediment after dredging.
- EPA will stabilize the sediment with cement-like materials in the segments of the canal where the native sediment is contaminated with mobile liquid coal tar
- The stabilized areas will then be covered with the multiple layer cap

- The multi-layer cap consists of;
 - a “treatment” layer made of a specific type of material that will remove contamination that could well up from below,
 - an “isolation” layer of sand and gravel that will ensure that the contaminants are not exposed, and
 - an “armor” layer of heavier gravel and stone to prevent erosion of the underlying layers from boat traffic and canal currents
 - clean sand will be placed on top of the “armor” layer to fill in the voids between the stones and to establish sufficient depth in order to restore the canal bottom as a habitat



HOW DOES THE PLAN ADDRESS THE COMBINED SEWER OVERFLOWS?

- EPA is requiring that combined sewer overflow discharges from two major outfalls and smaller outfalls located in their vicinity, in the upper portion of the canal, be outfitted with retention tanks to reduce the volume of contaminated sewage solid discharges.
- The final locations of these tanks will be determined during the early stages of the remedial design
- An estimated reduction of 58% to 74% of discharges of sewer solids will be needed to maintain the effectiveness of the cleanup

HOW DID THE CANAL GET CONTAMINATED?

- The Gowanus Canal was built in the mid-1800s and was used as a major industrial transportation route
- Manufactured gas plants, paper mills, tanneries and chemical plants operated along the canal and waste products from their operations polluted it
- Contamination also flows into the canal from overflows from the sewer system that carries sanitary waste from homes and and industrial pollutants mixed in stormwater runoff