# south river science TEAM UPDATE

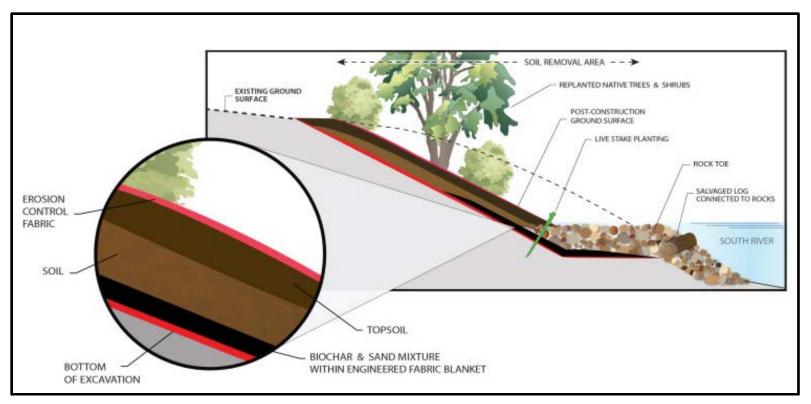
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# Phase 1 Riverbank Remediation and Restoration

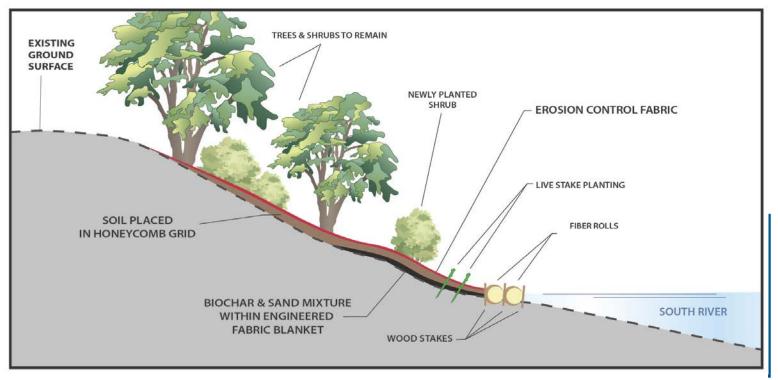
The Virginia Department of Environmental Quality has approved DuPont's work plan to design the initial phase of work to remediate and restore South River riverbanks containing mercury. These initial efforts will focus on the stretch of river immediately downstream of the former DuPont Waynesboro plant. Riverbanks that are eroding and have elevated soil mercury levels will be remediated to help achieve the ultimate goal of reducing mercury levels in fish. The first riverbanks that will be remediated are owned by the City of Waynesboro. DuPont will coordinate the work with the City's existing programs involving storm water improvements, park upgrades, and other civic improvements.

Two remediation approaches will be used depending on the levels of mercury in the riverbank and the amount of erosion. The first approach involves removing mercury-contaminated soil (see graphic below), and the second approach involves isolating or capping the soil (see graphic on back page). Both of these approaches also include a mixture of biochar and sand within an engineered fabric blanket. Biochar is a charcoal-like material that has the ability to absorb mercury and bind it in place. Regardless of the approach used, preserving valuable trees and habitat will be a priority, and care will be taken to minimize the overall impact of construction.



### **Contaminated Soil Removal Approach:**

At riverbanks with large, eroding areas of contaminated soil, some of the impacted soil will be removed, the riverbank will be regraded to a natural slope, and native trees and shrubs will be replanted on the riverbank to help prevent erosion.



## **Contaminated Soil Capping Approach:**

At riverbanks with less erosion and/or lower levels of mercury-impacted soil, erosion control fabric will be used to cap the riverbank and prevent further erosion. When possible, most of the trees and shrubs on these riverbanks will remain so that their deep roots can help naturally stabilize the riverbank. After the bank is stabilized, more vegetation that is native to the area will be planted on the riverbank slopes.

The work will be completed in phases using enhanced adaptive management. Using this technique, remediation work will be coupled with monitoring so that monitoring data results can be used to adjust different aspects of the remediation effort. (For more information about enhanced adaptive management, see the Second Half 2012 issue of *UPDATE*.) Throughout the work, the technical and outreach activities of the South River Science Team will continue to contribute to these efforts.

DuPont has been communicating with stakeholders to obtain their input and improve the details of these approaches. A Remediation Advisory Panel has been established as a means through which members of community and stakeholder groups can discuss their viewpoints as the project progresses. Twelve people representing diverse interests and the community at large serve on the panel and meet to ensure routine and consistent communication between all parties.

For more information about this project, contact Mike Liberati (DuPont) at (302) 598-9936 or michael.r.liberati@dupont.com.

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