

Restoring Habitat...A “Herp” Success Story!

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The landscape was forbidding, especially for reptiles and amphibians. High concentrations of cadmium, lead, and zinc oozed into the small pool from black sludge pits. Just a few hundred yards away, a larger wetland was in jeopardy – if something didn't happen soon, it would also be contaminated.



The US Fish and Wildlife Service (FWS), as landowner, had to take action. Great Swamp National Wildlife Refuge and the FWS Environmental Contaminants staff worked with Harding Township, the Environmental Protection Agency, and New Jersey Department of Environmental Protection to develop a multi-agency clean up plan for the site. The Harding Township Landfill site was transferred to the FWS as part of a larger parcel of land purchased in 1969. It wasn't until 1991 that sampling conducted by Environmental Contaminants Program biologists indicated that contamination was present. A follow-up ecological risk assessment conducted in 1999 showed that conditions had worsened and that the contamination was spreading. Cleansing the site would be costly and complex, requiring the highest level of cooperation and collaboration, if it were to be a success. Despite the support of all involved, it took a monumental effort to get the clean-up project off the ground.

Once the clean-up plan was finished, it was time to begin “slingin' dirt.” The transformation from Superfund site to restored wetland took only four months – and was truly remarkable! In place of toxic sludge pits were clear vernal pools.

Soon, an unusual discovery was made -- New Jersey Endangered Blue-spotted salamander larvae

were found in the newly established pools. Blue-spotted salamanders are a secretive species, rare in northern New Jersey and not often seen throughout the rest of their range. Spotted turtles, a species of special concern in New York, now frequent the clean tussock sedge marsh that is regenerating in the remediated wetland. Habitat management measures have been implemented to restore a historical population of New Jersey Threatened Wood turtles. Best of all, land preserved as a result of the project will be managed to restore waning populations of federally Endangered Bog turtles.

The cleanup on Great Swamp National Wildlife Refuge was a resounding success. Partnering with federal, state, and local agencies, the FWS was able to remediate a toxic waste site, restore functional vernal pool habitat, and create a “herps” success story!



Photos provided by USFWS and for more information on this story or other United States Fish and Wildlife herp related projects, please contact the author at: Carol_Pollio@fws.gov