

# Old dam leaves a mess in its wake

## Restoring natural ecosystem starts with a major cleaning

BY TEHANI SCHNEIDER • DAILY RECORD • JUNE 26, 2008

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HACKETTSTOWN -- On the banks of the Musconetcong River, the decaying pile of junk grew, like remnants from a 100-year flood. Rusted car parts and metal frames mixed with sodden debris. An antiquated wagon wheel, plucked from the rushing water with wooden spokes caked with sludge. A few skeletal remains of indigenous critters, a cow bone and a woodchuck skull.

And tires: Hundreds of used tires -- even one from a Model T with vegetation clinging like a second skin.

"We did find a rowboat and the top of a stove," said volunteer August Gudmundsson. "We're still looking for the kitchen sink," he joked.

The Gruendyke Mill Dam on the river was intentionally breached last week as part of a longterm project to restore the area's natural ecosystem. The river level dropped about five feet as a result, allowing tons of debris to flow freely and rise to the surface in the dam removal site, said Bill Leavens, president of the Musconetcong Watershed Association.

The dam, which was first constructed by early Dutch settlers, had been rebuilt in the 1920s.

The current dam sits behind the Pump House Restaurant on Route 46 in Washington Township, just over the border from Hackettstown, and is owned by restaurateurs Eileen and Rodger Cornell.

But with the dam rendered obsolete and a hindrance to the natural ecological system, removing the Gruendyke and more than 20 other dams on the river has become a project for members of the watershed association.

Starting with the removal of the Gruendyke, they worked for more than five years, securing state permits and thousands in funding from local, county and federal agencies.

The nonprofit organization also received monies from private donors, Leavens said. In addition, the association received open space from the Cornells in exchange for paying for the dam's removal, he said. All told, approximately \$200,000 in funding was secured, Leavens said.

The association's efforts culminated in an extensive clean-up on Wednesday morning at the dam removal site.

Approximately 50 volunteers from various organizations, including the watershed association, New Jersey Trout Unlimited and the state Department of Environmental Protection converged on the area.

Clad in hip-waders, some ventured into the water to remove various items. Others scoured the mud around the riverbanks, searching for smaller objects.

The project's contractor, Chester Township-based Harrington Construction, assisted with the process, removing multiple tires at a time with a trackhoe.

Brian Cowden, Musconetcong Home Rivers Initiative coordinator for Trout Unlimited, said the clean-up was more widespread than he had originally planned.

"This was an unintended consequence of the dam removal," the Flanders resident said, gesturing to the piles of recovered tires with a mud-streaked palm.

"We knew there were tires in there but we had no idea when (the dam) breached last Monday, how many there were."

The tires will be collected by state workers, Cowden said.

Wednesday's clean-up was just the beginning of a lengthy restoration process for the watershed association, which plans to reforest 10 acres upstream.

Removing the dam will improve the water quality, restore native vegetation and create a better habitat for wildlife, Leavens said.

"When the dam was built, it created an artificial **environment** that invited non-native (plant) species," he said.

"The dam pool allowed the water to sit there, filling it with silt, and it became shallower, absorbing heat from the sun and encouraging the growth of algae."

That pool also created a thermal barrier, allowing hot water to spill over the dam, raising the temperature of the river and lowering oxygen levels, said Richard Thomas, National Leadership Council representative for the central Jersey chapter of Trout Unlimited.

Since trout need cold water to survive, their numbers diminished, he said.

Restoring the 43-mile river to its natural state will allow trout to last through the summer months and increase the survival rate of stock fish, Thomas said.

The river flows east to west from Lake Hopatcong south into the Delaware River, and there is **potential** to re-establish native fish migration and a spawning habitat, said Beth Styler Barry, executive director of the watershed association.

Members of the nonprofit organization also plan to build a riparian buffer, or mix of native trees, shrubs and grasses.

"This area will have to be vegetated again," Styler Barry said, as she pointed across the river bank to the barren area.

"I'd like to say it's like heart surgery. You're not going to be up and dancing right away but long term, you'll get the results. We'll get the cleaner and healthier stream and better water."

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Beth Styler Barry of Asbury and a member of the Musconetcong Watershed Association cleans up at the site of the Gruendyke Mill Dam. The site is on the Musconetcong River off Route 46.



Hackettstown--June 25, 2008--Members of the Musconetcong Watershed Association, cleaning up at the site of the Gruendyke Mill Dam, which was

removed. The site is on the Musconetcong River off of Route #46. Chris Altonari with Princeton Hydro Engineering, help cleanup. 2008 Photo by John Bell



Hackettstown--June 25, 2008--Members of the Musconetcong Watershed Association, cleaning up at the site of the Gruendyke Mill Dam, which was removed. The site is on the Musconetcong River off of Route #46. 2008 Photo by John Bell



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Hackettstown--June 25, 2008--Members of the Musconetcong Watershed Association, cleaning up at the site of the Gruendyke Mill Dam, which was removed. The site is on the Musconetcong River of off Route #46. Loretta Gomez of hackettstown carries out a cinder block. 2008 Photo by John Bell



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Hackettstown--June 25, 2008--Members of the Musconetcong Watershed

Association, cleaning up at the site of the Gruendyke Mill Dam, which was removed. The site is on the Musconetcong River off of Route #46. A group uncovering an old tire. f2008 Photo by John Bell



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Hackettstown--June 25, 2008--Members of the Musconetcong Watershed Association, cleaning up at the site of the Gruendyke Mill Dam, which was removed. The site is on the Musconetcong River off of Route #46. An old toy and other garbage found in the river. 2008 Photo by John Bell



Copyright 2008  
Hackettstown--June 25, 2008--Members of the Musconetcong Watershed Association, cleaning up at the site of the Gruendyke Mill Dam, which was removed. The site is on the Musconetcong River off of Route #46. August Gudmundsson of Hackettstown helps pull a tire out of the river. 2008 Photo by John Bell