

Don't Mess With Mammoth Days in the Pike Spring Basin of Kentucky

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Abstract

Don't Mess With Mammoth Days is a cooperative effort among private and governmental organizations to clean up groundwater recharge of the Pike Spring Basin in and near Mammoth Cave National Park. In alphabetical order, the organizations consistently involved are the Cave Research Foundation, Hart County Solid Waste, Mammoth Cave National Park, and the National Speleological Society. It is important to keep in mind that the horsepower within these organizations is provided by people who match their rhetoric with hard work. Bill Hack, the previous director of Hart County Solid Waste, was particularly helpful in getting this project off the ground.

Water within the basin is carried by cave passages to Pike Spring on the Green River within Mammoth Cave National Park. Neither water nor cave passages are mindful of the park boundary which crosses the basin, and the wildlife within cannot tell if pollution comes from within or beyond the park. Aquatic cave life in the Pike Spring Basin includes blind fish, crayfish, and many other specialized cave species, most notably the Kentucky Cave Shrimp. This shrimp is on the Endangered Species List, and Pike Spring Basin may have the largest shrimp population known. This is why Pike Spring Basin has the highest priority.



Figure 1. The cave crayfish (Orconectes pellucidus) from Mammoth Cave.

On the first field day, which was held in March 1996, more than 30 volunteers removed tangles of wire, sheet metal, broken glass, appliances, and automobiles that had been discarded in sinkholes. Seven truckloads of rubbish and recyclable metal were removed, and remedial work was performed on gullies to stop erosion. In subsequent years, participation in *Don't Mess With Mammoth Days* events has varied from 25 to 45 volunteers from up to eight states, with similar impressive outcomes. To date, approximately 175 tons of rubbish and 35 tons of recyclable metals have been recovered from dumps within the Pike Spring Basin. Much of this is non-toxic, but many agricultural chemical containers with residual product have been recovered as well. Ecologically, sinkholes funnel food into caves, and if they are clogged with trash, then the organic matter needed by wildlife such as the Kentucky Cave Shrimp cannot get in.

The most recent events were held January 13 to 15 and March 3 to 5 of 2003 in cooperation with Trinity Christian College (Palos Heights, Illinois) and Waynesburg College (Waynesburg, Pennsylvania) respectively. In both cases education on karst conservation issues was incorporated with the hard cleanup work on dumpsites.

One dump, selected for us by Jerry Matera (Hart County Solid Waste), had a rich array of unwanted resources including tires, washing machines, ranges, and refrigerators of various vintages, an abundance of household trash, and a nice collection of fluorescent lamps (fig-



Figure 2. Fluorescent lamps, which contain mercury, on a dump site at left. Students from Trinity Christian College working on hillside dump over Fisher Ridge Cave System near Mammoth Cave National Park at right.

ure 2). Warned to watch out for potentially hazardous items as part of the safety talk, one participant found a half-full propane tank. The dump was located on the road between the park and Northtown at a site over the Fisher Ridge Cave System, which has a surveyed

Challenges remained: tractor and truck tires to pry out of the ground, a wringer washer looking like a half buried monument from a civilization gone by, and soda bottles no longer made. Metal to be recycled was lined up on the road shoulder along with 50 tires destined for



Figure 3. Volunteers hauling an appliance up a steep hill, and a discarded Ford Mustang car door.

length of over 100 miles.

It is miraculous how people can warm up to the monumental task of cleaning up a big mess for the common good. Moving heavy appliances up a steep hill is a challenge, an opportunity for teamwork, and a chance to see results in a short time frame. Household waste that went into the trash can one item at a time many years ago once again sees the inside of a garbage bag, courtesy of diligent volunteers. Gradually, progress made over the hours becomes apparent as a highly visible problem gradually gets solved.

a 30-cubic-yard rolloff dumpster provided by Hart County Solid Waste. Bag after bag of small items was carried to the dumpster and these materials headed for the landfill were hefted up and over the side. Tires were moved up the hill with toil and rolled to the rolloff dumpster. Women outnumbered men in this effort and their spirits were unbent at the end of the day. In addition to the rubbish, two truckloads of metal to be recycled were loaded and hauled off by Hart County Solid Waste staff.

The Waynesburg College group was equally impressive. They knocked out two dumpsites in one day. Both were on roadsides, one near



Figure 4. Trinity Christian College crew loading tires into the 30 cubic yard dumpster at left. Still smiling at the end of the day, women volunteers pose with "corrected" sign at right.



Figure 5. Waynesburg College volunteers 'mining' household waste from roadside at left. Victory after washing machine was dug, pried, and hauled out on rope at right.



Figure 6. Girls with garbage bags at left. Drug container with syringe at middle. Waynesburg College crew at right after cleaning up a quarter mile long roadside dump.

a sinking stream and the other in a sinkhole. There were big items like a tractor axle and appliances and many more small things. Some small things can be very significant, such as discarded spray cans.

Some items, like an old washing machine, were partially buried by boulders in the dry streambed and had to be dug and pried out. The team approach of doing “tug-of-war” with big items proved very useful, and provided a great sense of accomplishment when working together. As is always the case, there are a lot of small items that need to be picked up and bagged. Laborious, but gratifying work. In one case a medication bottle with syringe was recovered. The group had outstanding “esprit de corps,” even at the end of the day.

Lest we fall into the trap of harshly judging those who left this mess, let me explain that until recently trash pickup and sanitary landfills were unavailable. So refuse was dumped into sinkholes and ravines since these areas had apparently little other practical use. Historically, much of what was discarded would have little effect on the quality of drinking water as it percolated down to the caves below, but that changed in more recent decades as toxic chemicals became more prevalent in both agricultural and household products. With the benefit of 20/20 hindsight, we now know that what goes down can come back up water wells, much to the dismay of those on the receiving end. Both people and wildlife can be seriously affected.